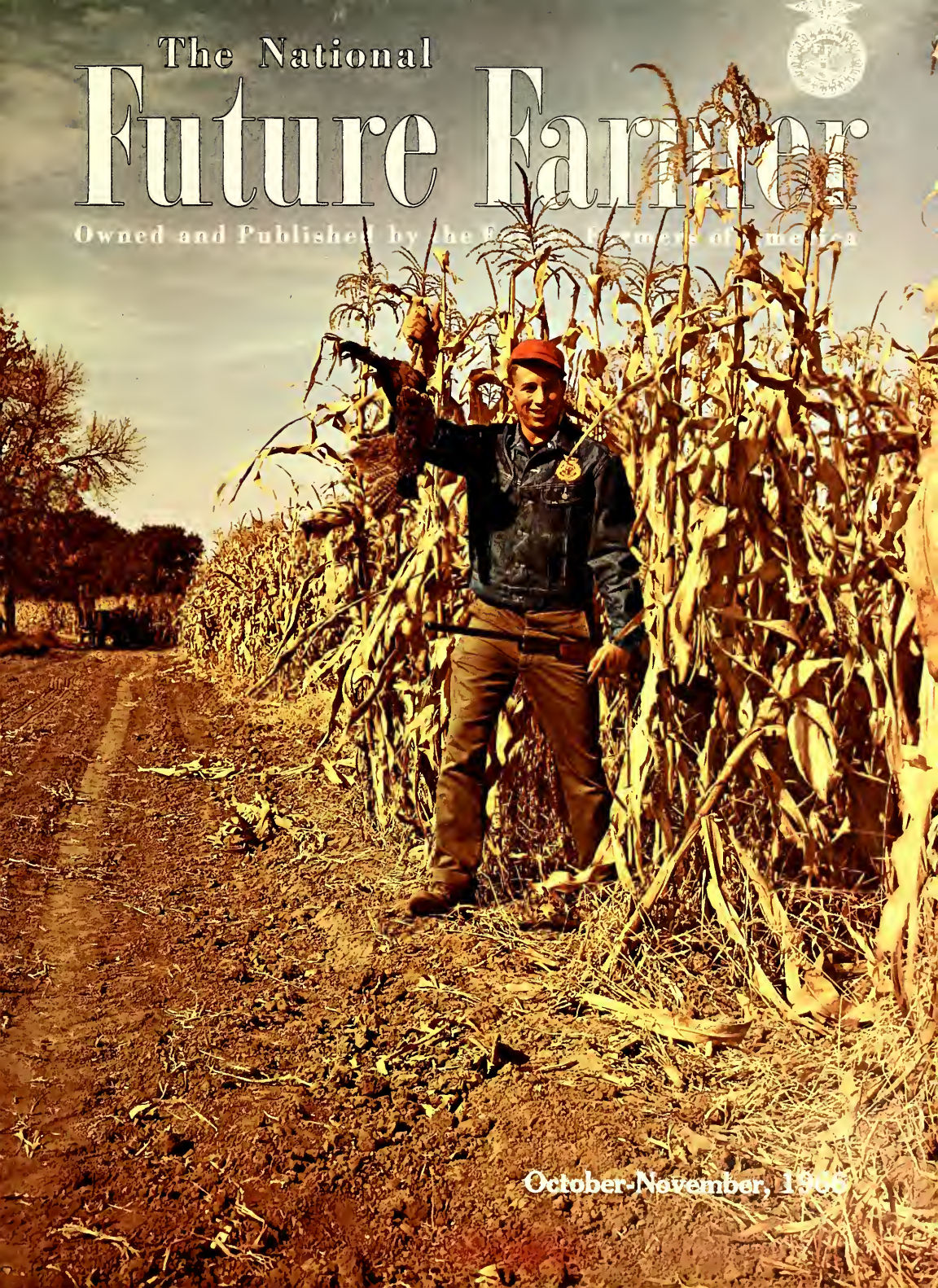
The National

Future Farmer

Owned and Published by the Future Farmers of America



October-November, 1966

Future farmers have the inside track in the Union Pacific West

. . . when they get in touch with one of our agricultural representatives for help in future planning. They'll put you on the right track. They have the know-how and the ability to assist. Write to us, let us know your special interests, and let's get acquainted.

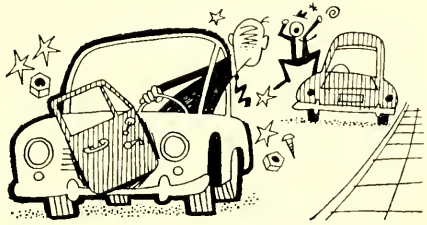
Supervisor of Agricultural Development
Union Pacific Railroad
Omaha, Nebraska 68102

Everyone thinks he's a good driver

Yet, many drivers can't answer these questions about city driving. How about you?

1 What should you be on the watch for when you're passing parked cars?

Above all, look for people and movements of any kind. If you see someone in a car, it means the door could fly open at any time or the car could be ready to pull away from the curb. Be extra careful when people are outside the car. Especially little children. They run into the street suddenly.

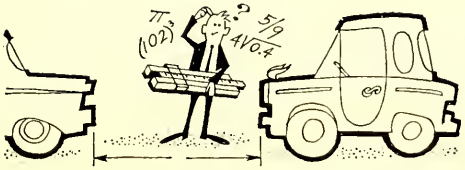


2 What do you do about drivers that suddenly fill the gap between you and the car ahead?

Keep cool and let them have the room. It's natural to get steamed up, but patience and courtesy are your guides to better driving.

3 Know why you should allow one car length for every 10 m.p.h. of speed?

Three reasons: your reaction time, the possibility that the car ahead might stop short, and the distance it takes to stop at that speed.

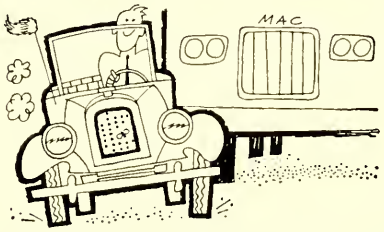


4 When you're driving down a street, how far ahead should you be looking?

On an average, at least a half a block. That way you'll be able to spot traffic hazards in advance and anticipate what the car in front of you is going to do.

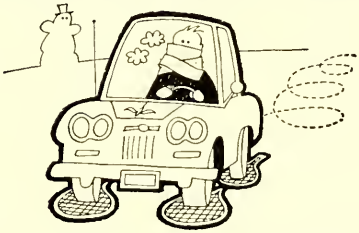
5 What's the proper way to get on and off the expressway?

Getting on, accelerate so that you move easily into the flow of traffic. Be sure you're in the lane from which you'll make the exit properly. You can get off with no strain, if you move into the right lane well before the exit comes up. Then don't slow until you're on the exit lane.



6 Do you really need seat belts for driving around the city?

You bet your life. Two-thirds of the fatal accidents happen less than 25 miles from the driver's home. And half of all fatal accidents occur under 40 m.p.h.



7 How do you get the "feel" of a city street in the winter?

While driving slowly and away from traffic, try your brakes or give the accelerator a nudge. You'll find out how slippery it is and be able to adjust your speed to it. Remember, you can't stop on an icy dime.

8 What tire is first choice for original equipment on new cars and replacement equipment on used cars?

Firestone . . . with good reason.

QUALITY AND SAFETY COME FIRST AT FIRESTONE

Firestone

A Sponsor of National Student Traffic Safety Program, National 4-H Automotive Program and FFA

BUILD YOUR CAREER IN AGRICULTURE AND

If you're growing up on a farm, you are a wanted young man!

You are unique. You are wanted in the expanding world-wide business of producing, processing, and marketing *FOOD!*

If you plan to go to college, and then plan to g

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AGRIBUSINESS . . . *WHERE THE NEW ACTION IS!*

back into some phase of farming, that's fine.

If you plan to go to college but *don't* want to go back to the farm, think twice before you jump clear over the fence and throw away your farm background. Think you'd like a career in chemistry, journalism, accounting, engineering, art, or architecture? These and many other careers are open in the growing field of agribusiness. Salaries and opportunities are rising steadily.

What are the jobs? What are the salary levels? What are the college courses that prepare you for one of these careers? For information, write Department 259, Ralston Purina Company, Checkerboard Square, St. Louis, Missouri 63199.

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The National Future Farmer
Owned and Published by the Future Farmers of America

OCTOBER-NOVEMBER, 1966

THE MAGAZINE FOR YOUNG MEN IN AGRICULTURE

VOLUME 15 NUMBER 1

In This Issue

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HAVE YOU EVER WONDERED WHAT IT IS LIKE TO STUDY VOCATIONAL AGRICULTURE IN HAWAII? IF YOU HAD THE CHANCE, WOULD YOU LIKE TO VISIT WITH A HAWAIIAN FUTURE FARMER? THIS ARTICLE TAKES YOU TO HAWAII WHERE YOU VISIT A FUTURE FARMER AND LEARN ABOUT HAWAIIAN AGRICULTURE.

38 Fatten Cattle Without Grain

FUTURE FARMERS ARE APT TO BE EARLY ADOPTERS, AND THE TERRELL BROTHERS WHO HELP OPERATE SIX FARMS ARE NO EXCEPTION. THESE YOUNG FARMERS HAVE FOUND A WAY TO FATTEN CATTLE WITHOUT GRAIN. THEY SHARE THEIR SECRET IN THIS ARTICLE WHICH ALSO TRACES THEIR FFA HONORS.

84 Instinct Shooting

IF YOU HAVE A GUN OR LIKE TO SHOOT, YOU ARE SURE TO LIKE THIS ARTICLE BY GEORGE CARSON, OUTDOOR EDITOR OF THE ST. LOUIS GLOBE-DEMOCRAT. HE SAYS, "INSTINCT SHOOTING IS FOR THE SHOOTER WHO CAN'T SPEND HOURS AND MONEY AT A GUN CLUB BUT WHO LIKES TO HIT TARGETS."

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Our Cover

The successful pheasant hunter is Leonard Burton, a member of the North Loup-Scotia, Nebraska, Chapter.

Leonard was a member of the FFA land judging team and had gone out to the field that morning to look for a few pheasants prior to the contest. You can see he was pleased with his luck!

Just another one of those benefits a farm boy enjoys!

PHOTO BY C. A. CROMER

THE NATIONAL FUTURE FARMER is mailed every two months on the following dates:

January 20	**FEBRUARY-MARCH** Issue
March 20	**APRIL-MAY** Issue
May 20	**JUNE-JULY** Issue
July 20	**AUGUST-SEPTEMBER** Issue
September 20	**OCTOBER-NOVEMBER** Issue
November 20	**DECEMBER-JANUARY** Issue

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"The overhaul at 220,000 miles wasn't really needed. But I believe in preventive maintenance."

"I've owned Dodge trucks for 20 years, using them to haul livestock. One, a 1961 D600 with V8 power, makes four 400-mile round trips a week to Milwaukee, moving a 26,000-pound gross load and giving me six miles to a gallon. It's been overhauled twice. Once at 100,000 miles, again at 220,000 miles. I don't think the Dodge really needed that second overhaul, but I believe in preventive maintenance. Now it's up to the 260,000-mile mark. I'll put another 60,000 miles on it in the next year, and then trade it—for another Dodge, of course. In all the years I've owned Dodge trucks, I've never had one break down on the road."

Lyle Wendt
Bear Creek, Wisconsin

What's this kind of Dodge toughness, economy and dependability cost? Dodge trucks are priced nose to nose with Ford and Chevy. See your dependable Dodge truck dealer. He'll prove it to you in black and white. He'll show you how little it will cost for a Dodge truck that can do a better job for you. Whatever your kind of trucking job—small, medium, or large—there's a tough Dodge Job-Rated model to do it. So what are you waiting for? Dodge toughness doesn't cost any more. Why settle for less?

Dodge Builds Tough Trucks

DODGE DIVISION CHRYSLER MOTORS CORPORATION

The Future of Farming is Measured in...

WATER!

Here's a prediction for the future that is sure to come true: Future farmers will need more water than ever before!

Modern farming calls for more water. Tomorrow the need will be even greater. Farms will be larger with more jobs for water to do.

This is why we say, THE FUTURE OF FARMING IS MEASURED IN WATER. This is why, you, as a future farmer should get to know MYERS . . . since 1870 the finest name in farm water systems.

Another prediction: Tomorrow... the most progressive methods and equipment for delivering all the water you need will come from Myers . . . just as they do today! So, stop in and see your Myers Dealer. He will be glad to furnish you with free literature on the finest in pumps and water systems.

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Your Editors Say...

The National FUTURE FARMER you are holding is something of a milestone in the growth of your National FFA Magazine. With this issue, we begin 15 years of publication. It has the further distinction of being the largest issue published to date with a total of 92 pages. The issue carries just over 43 pages of advertising—also a record.

Articles and photos in this issue have been carefully selected to appeal to a wide range of reader interest, and we hope you like what the editors have provided. You can visit with the four Regional Star Farmers and make your tentative selection for the Star Farmer of America, or take a trip to the sunny Pacific for a visit with FFA in Hawaii. If your interest takes you to the outdoors, you may want to try your skill at instinct shooting or the challenge of bowhunting for deer. To help you farm better, there are articles on how to increase your calf crop, fatten cattle without grain, and precision planting.

The FFA articles include a preview of the National FFA Convention coming up in October when nearly 10,000 FFA members will gather for the largest farm meeting in the world. Other articles tell of FFA activities throughout the country and contain ideas that you or your chapter may want to use.

You will find many friends of the FFA among the advertisers in this issue. They offer products and services for your consideration. You'll discover that reading advertisements can be an educational experience. Remember too, their support is important to the success of your magazine. Contrary to what many people believe, increased advertising space does not limit the number of articles but, instead, makes it possible to carry more.

Former National FFA President Doyle Conner, now commissioner of agriculture in Florida, had some food for thought in his recent speech to Donor representatives of the Future Farmers of America Foundation meeting recently in Washington. He quoted this passage from Italian historian Guglielmo Ferrero's book, "Ancient Rome and Modern America." "The disease which killed the Roman Empire was, in fact, excessive urbanization. . . . The Empire covered itself with cities great and small, rivalling each other in splendor and wealth.

"Little by little the expenditures of the urban civilization, the cities and their increasing luxuries, outdistanced the fertilty of the countryside.

"In order to feed, amuse, and clothe crowded city populations; to carry through the construction of magnificient monuments; to provide work for the industries and the arts of the cities, agriculture was little by little ground down by ever increasing burdens.

"One day the Empire awoke to find its cities were swarming with beggars, idlers, vagabonds, plasterers, sculptors, painters, dancers, actors, singers—in fact, the whole tribe of the artisans of pleasure and luxury.

"But in the fields, which were expected to feed all these men who had crowded into the cities to work or to idle . . ." (there was a scarcity of people left to cultivate the land.)

"The agriculture of the Empire, and with it the Empire itself, received its death blow . . ."

Americans should give serious study to the implications this holds for us today. How true, the 1967 FFA Week theme, "Agriculture—Strength of America."

Wilson Carnes

Editor

"One grease for all my equipment makes lubrication easier for me."

Texas farmer C. C. Franz said it. He's been in the farming business since 1947. Uses 5 tractors, 2 combines, and a pickup truck to farm 844 acres near Houston. So he knows the value of using the right lubricant to keep them working. His lubricant is Marfak Multi-Purpose.

"Using different greases for the lubrication needs of my equipment was a nuisance—and there was always the possibility of using the wrong one and doing harm.

"But now I use just one—Texaco's Multi-Purpose Marfak. It protects everything I've got—tractors, combines, pickup. It doesn't pound out or leak out. Resists water and wear.

"My Texaco Farm Service Distributor put me on to that one. It's one of the reasons why I depend on him."

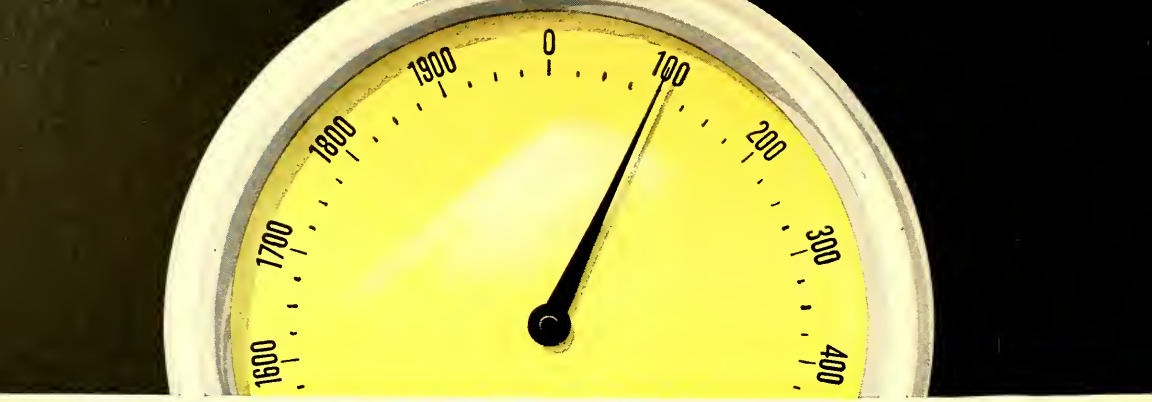
Depending on your Texaco Farm Service Distributor is good business. In this case, it's helping Mr. Franz reduce maintenance costs and repairs, and keeping his equipment in service longer.

Isn't that the kind of help *you* can use? Give your Texaco Farm Service Distributor a call. He's got the money-saving, fuel-saving, engine-protecting Texaco products you need for your farm. He'll deliver them—*on time*—before your need becomes a problem.

Trust Texaco Farm Service

TEXACO Farm Service

Here are some of Texaco's top-quality petroleum products for the farm: 1. Marfak Multi-Purpose lubricant. 2. Havoline and Ursa Motor Oils. 3. Multigear Lubricant EP. 4. Regal Oils for hydraulics. 5. Famous Fire Chief gasoline and Texaco Diesel fuel.



FIGHT THE HIGH COST OF HEALTHY GAINS

with the Milk-Bank nutrition of Kraft Feed Boosters

Here's their bank of milk nutrients: dried whey, delactosed whey, hydrolyzed whey, cultured whey, cheese.

Sure, if money were no object, you could get fast, healthy gains easily. The trick is to do it *without* adding to your feed cost, and if possible, cut your cost per pound of gain.

It *is* possible with Kraft Feed Boosters—Pex products for poultry, Kraylets pellets and Kraft Pig Pre-Starter for swine, Kaff-A products for dairy and beef cattle, and Nutri-Plus Boosters for sheep. And, to give horses extra bloom, gloss, and vigor, you can use Pace Pellets.

These feed boosters give animals nutrients that ordinary rations don't usually provide: milk nutrients rounded out with other important ingredients. With the lactose, protein, minerals and vitamins that the milk nutrients supply, any ration will produce more healthy gains more efficiently. Here's why:

LACTOSE—HARDWORKING CARBOHYDRATE

The Milk-Bank Boosters provide lactose, a hard working carbohydrate, especially important for young and growing animals. It outperforms all other sugars, giving you a better rate of gain with fewer digestive upsets.

In addition, lactose promotes acidity in the digestive tract, keeping it clean and healthy. And with lactose in the ration, animals absorb and use more calcium, phosphorus, and magnesium.

PROTEIN RICH IN AMINO ACIDS

Protein is another key element in the Milk-Bank. Lactalbumin and casein are among the richest in essential amino acids, ideal complements to grain protein.

They promote animal health and growth, help build soft tissues and disease-fighting antibodies.

BONUS IN MINERALS AND VITAMINS

Milk-Bank Feed boosters offer a good supply of minerals, too: calcium, phosphorus, potassium, sulphur, and magnesium plus trace elements such as manganese, iodine, copper, iron, and cobalt.

The vitamins—members of the B complex—in these feed boosters supply added nutrition and reduce the need for vitamin supplements. Finally, Milk-Bank feed boosters provide unidentified growth factors which stimulate growth and improve over-all feed efficiency.

Feed rations that work harder and bring out the best in your stock—rations that include the Milk-Bank Boosters by Kraft. Ask your dealer or write for Kraft Research Proved-Farm Tested feed formulas now. Kraft Foods Agricultural Division, Dept. 19, 500 Peshtigo Court, Chicago, Ill. 60690.

KRAFT

...where better nutrition starts with milk

Looking Ahead

Livestock

BEEF—Chicago Board of Trade members voted August 29 to establish live beef cattle trading. Robert L. Martin, chairman of the Board, called the action "an enlightened move." He said the addition of a live beef contract to futures, already traded in feed grains and steer carcasses, will complete the range of trading opportunities offered by the Board.

Medium grade steers purchased for $4 a hundredweight less than a similar group of choice Angus steers netted $73 per steer, compared to a net of $32 for each choice steer. The medium grade cattle gained 2.7 pounds per day, the choice 2.1 pounds. The lower first cost and superior gains were big factors that made the lower grade steers more profitable in the two-year Iowa tests.

Melengestrol acetate (MGA), an experimental feed additive originally developed as an aid to heat synchronization in cattle, also appears to be effective in stimulating feedlot gains and feeding efficiency in feedlot heifers. The stimulation obtained from MGA was somewhat superior to benefits received from feeding stilbestrol to heifers. Also, quantities fed are less than the 10-milligram stilbestrol level. It is not yet available on the open market.

HOGS—USDA veterinarians say sows exposed to the cholera virus during pregnancy can, in some cases, transmit the disease to unborn pigs. Hog cholera is hard to detect in baby pigs. In many cases, it does not show up until it spreads to older, susceptible hogs. Look for these danger signs: abortions of undetermined cause, stillborn or weak pigs, "shaky" or "jittery" pigs, abnormal pigs, blind or hairless pigs, or a high mortality rate from birth to weaning.

University of Wisconsin and North Carolina State College scientists are recommending a new timed pig de-wormer called Dichlorvos. Outstanding characteristic is its timed release of the active chemical which allows it to reach every part of the digestive tract. Most de-wormers are effective in only one part of the tract and control only one or two worms. The new product offers broad spectrum control.

POULTRY—Poultrymen can reduce feed wastage 34 percent simply by filling feeders only half full. Experiments at Merck and Company show that 37 percent of the feed is wasted when feeders are filled to capacity.

University of Wisconsin scientists have found that feeding an antibiotic (erythromycin thiocyanate) to laying hens could boost egg production about 5 percent. Besides the boost in egg production, the feed conversion was slightly better. Cost is about 8 cents per gram. It would cost about $56 per year for 1,000 chickens.

DAIRY—Michigan State University scientists believe they've found the "missing link" that will enable them to get acceptable levels of milk from calfless, unbred heifers and cows. This finding could not only provide another important milk supply, but it would prevent the slaughter of many potentially valuable—but infertile cows. The scientists use a combination of these hormones: Estrogen and progesterone to induce udder growth, and adrenal cortical hormones to initiate milk production.

Crops

ORBITING ASTROPLANT—Pepper plants will be the first plants sent orbiting into space according to a report before the International Horticultural Congress at the University of Maryland. Of most interest to biologists will be how the orbiting astroplants respond to the weightless environment. The three-day flight will be held late in 1966 and will be followed later by 21- and 30-day flights. Scientists see the possible need to grow agricultural plants in space for long periods on orbiting space or moon stations to provide food for astronauts.

NITROGEN FORM AFFECTS DISEASES—A University of Idaho scientist says that bean root rot, corn stalk rot, and sharp eyespot of wheat are some of the soil-borne diseases reduced by the nitrate form of nitrogen. They are increased by the ammonium form. In contrast, early dying and scab of potatoes are increased by nitrate nitrogen and reduced by the ammonium form. However, don't expect to control them by applying the right kind of nitrogen. Effects of fertilizers are determined by residual nitrogen in the soil, by stability of the type of nitrogen, and by crop sequence.

GRAIN SORGHUM WITH CORN QUALITY—Grain sorghum with feeding quality equal to corn . . . impossible! A new variety, G-600, developed by Dr. Bruce Maunder, director of sorghum research for DeKalb, has almost matched corn in a feeding test at Texas A & M. The variety has a pure yellow endosperm and is the first of its kind.

HIGH MOISTURE BARLEY—A five-year Montana study shows that high moisture barely can be combined, stored, and fed successfully. The wet grain was harvested at 35 percent moisture instead of the normal field-dried 10 to 12 percent. The damp barley threshed easily and yielded 3 to 6 percent more than field-dried grain. In the feedlot a .3 pound per day better gain was obtained.

VARIABLE ROW SPACING—Variable row spacing of irrigated cotton in a Texas experiment provided substantial cost reduction. Test plots were planted in alternate 26- and 54-inch rows . . . 26 inches across a narrow but deep water furrow, and 54 inches across a wide double bed. The cotton yielded over three bales per acre with only 20 inches of water. Cotton in regular 40-inch spacing yielded only 2½ bales with higher total production costs.

You're the guy they count on to keep the moving parts moving.

There are over 50,000 moving parts in an armored convoy. And you know them all.

You're an expert—an Army mechanic. You can hear an engine knock 5,000 miles before it starts. And the swingingest music in your life is the sound of a well-tuned motor.

You first heard that music back in high school when you had that sweet '61 convertible. You figured you were a good mechanic then, but now you know you are.

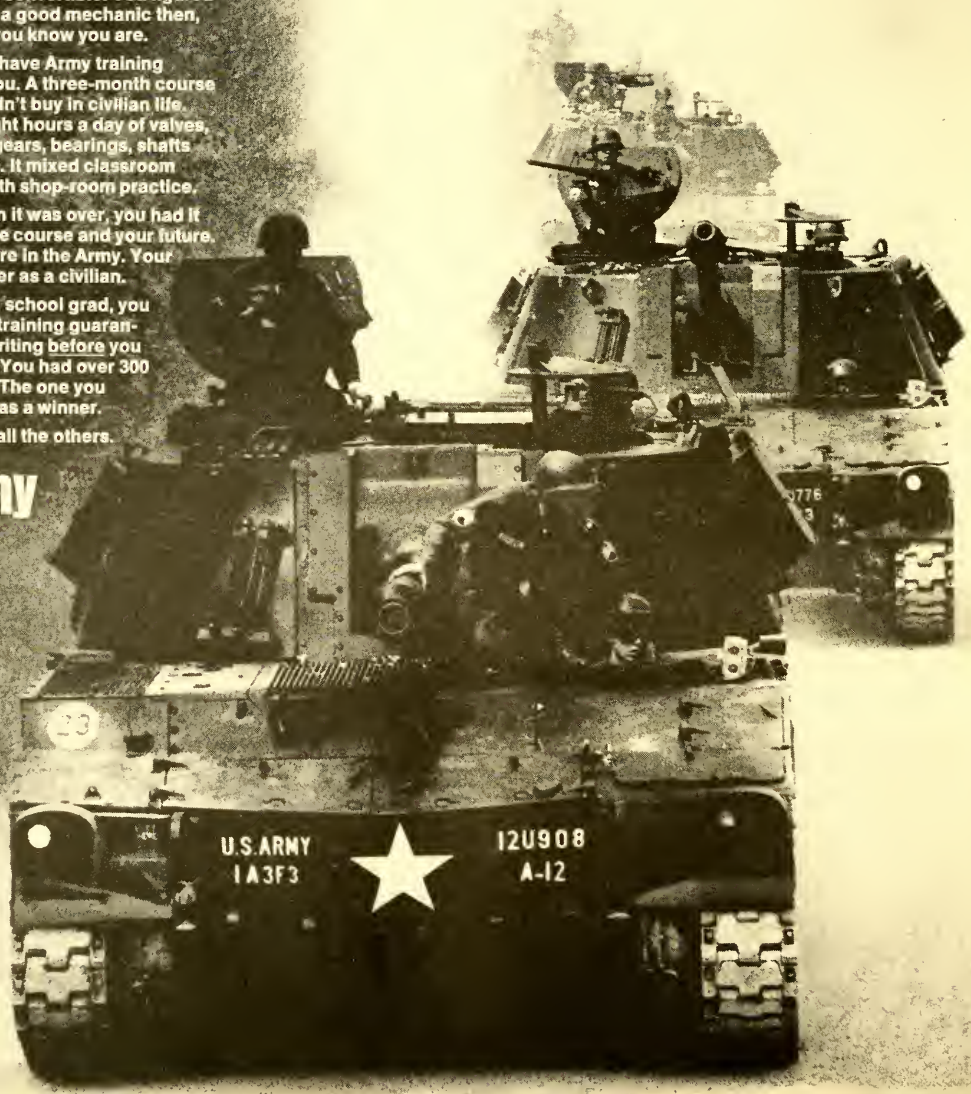
Now you have Army training behind you. A three-month course you couldn't buy in civilian life. It was eight hours a day of valves, pistons, gears, bearings, shafts and rings. It mixed classroom theory with shop-room practice.

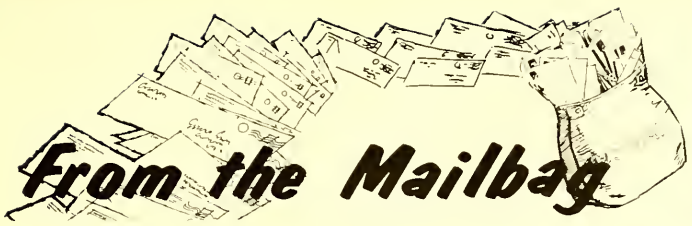
And when it was over, you had it made. The course and your future. Your future in the Army. Your future later as a civilian.

As a high school grad, you got your training guaranteed in writing before you enlisted. You had over 300 choices. The one you picked was a winner.

So were all the others.

Army





Randlett, Oklahoma

My big brother is an FFA chapter member. I like to look at his FFA magazine. I am eight years old. I am going to be a farmer when I get big. I have a German shepherd puppy and want to train him. So I am sending for the booklet on dog care. Thanks.

Dale McAdoo

Washington, Pennsylvania

Would you please send me the materials offered in *The National FUTURE FARMER*. I recently started receiving your fine magazine and find each copy a valuable addition to my personal library.

I am a student of agricultural education at West Virginia University. These materials should be of much value upon entering the teaching field. Thank you very much.

William Harshman
Mountaineer Collegiate FFA Chapter

Fulton, Kentucky

Last year our vo-ag class viewed a film on shoeing horses which told of a school where you can learn shoeing. Do you have information on such a school? If so, would you please send it to me?

Also, can you tell me where to find the music to the songs "Hail the FFA" and "I'm in Love with a Boy from the FFA?" Is the music the same for both songs?

I want to commend you on your fine parliamentary procedure articles. I belong to the Fulton County FFA Chapter, and we are learning parliamentary rules. Your articles are a big help to me as well as the other members.

Danny Kyle

Information on shoeing horses appeared in an article in the December-January, 1965-66, issue.

The words and music for "Hail the FFA" are in the Official Manual. Words for "I'm in Love with a Boy from the FFA," but no music, are also in the manual. There is a record available of these FFA songs which you can find in the Future Farmers Supply Service Catalogue.—Ed.

Colville, Washington

I have just received my first copy of your fine magazine, and I want to thank you and my sponsor. I should not be surprised, but I admit I was, that your magazine could be so helpful to the national Future Farmers movement.

I am sure that you take pride in representing the FFA to many interested readers. I am likewise sure that many, like myself, lend support to the FFA movement.

Edward W. Stollery II
KCVL Radio

Asnieres (Seine), France

I wish to become a good farmer. Practical experience in American agriculture will permit me to improve my country's agriculture.

I want to perfect my abilities in (a) production agriculture; (b) rural development; (c) cooperatives; and (d) utilization of farm machinery.

I wish to remain until I have perfected these abilities. I farm 660 acres including vegetables, corn, rice, melons, and cucumbers.

Jean Pierre Labonte

This is part of a letter from Jean Pierre Labonte of France. He requests an opportunity to spend some time on an American farm. Mr. Labonte is 35 years old and presently works in the French Department of Agriculture and Rural Development.

He would like to hear from readers interested in having him spend time on their farm. Address any letters to Mr. Jean Pierre Labonte, c/o Editor, The National FUTURE FARMER, Alexandria, Virginia 22306—Ed.

Baraboo, Wisconsin

I enjoy the FFA magazine as I am an FFA member. I think an interesting addition to the magazine would be a corner for members to show pictures of homemade inventions (tools, and new uses for old parts).

Tom Kriegl

Lincoln, Nebraska

Needless to say, all of us from Nebraska were pleased to see the way the irrigation scene was developed into a most attractive cover.

Ron Kennedy is certainly a most worthy FFA representative. A story of some of his beef management techniques was featured in the February-March, 1963, issue. We also have noticed that his picture is used in each issue on the "FFA In Action" page as the photographic background for the "A" in "Action."

I thought the article "A Future for You as a Vocational Agriculture Teacher" was certainly most timely and exceptionally well-written. Without question, one of the biggest needs in all of vocational education today is that of more teachers. The opportunities have never been greater for young men with a good agricultural background who like working with people. I would also like to add a word of appreciation to Dr. Ralph Woodin of Ohio State who supplied the supporting statistics for the article.

C. A. Cromer
Director of Vocational Needs
Nebraska FFA Association

Mr. Cromer photographed the August-September cover picture.—Ed.

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National FHA and FFA presidents cut into the FHA's 21st birthday cake.

What a BIRTHDAY PARTY!

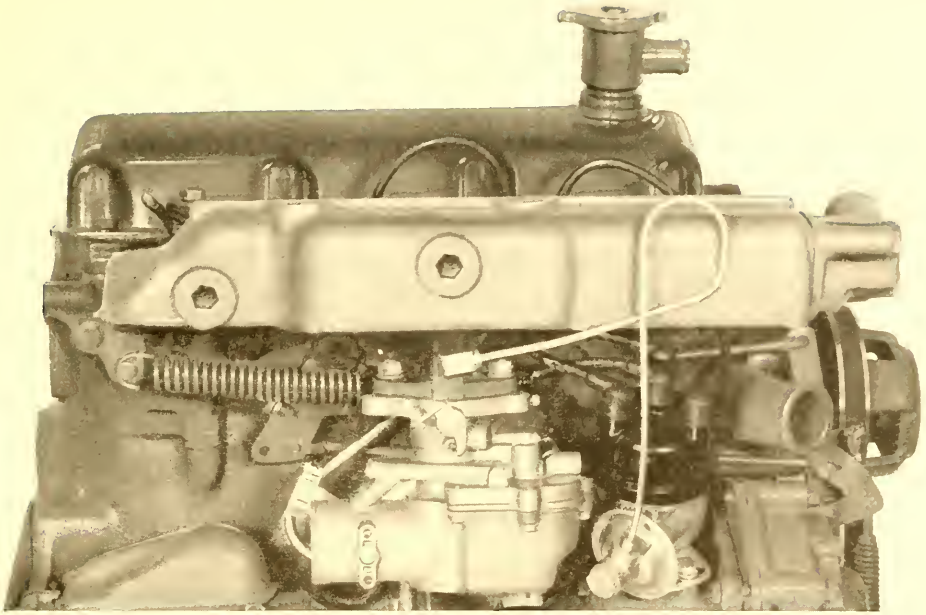
HOW WOULD YOU like to have a date with 1,100 girls for a birthday party? Exciting? Ask your National President Howard Williams. Howard was a special guest at the national meeting of the Future Homemakers of America in St. Louis, Missouri, which launched the 21st birthday celebration of the FHA.

He extended greetings and congratulations from FFA at the Saturday night banquet. Howard also extended an invitation to Susanne Hand, installed that night as the 1966-67 National FHA President, to attend the National FFA Convention in Kansas City and promised that all 10,000 Future Farmers would greet her with "open arms."

FHA's new national president is a high school senior from Cold Spring-Cape May, New Jersey. The national meeting of the FHA is much like the National FFA Convention in Kansas City. Delegates from every state come together to carry out the work of the organization. They elected 12 national officers. Highlight of the convention was the FHA Historical Pageant.

The Future Homemakers of America is a national organization for home economics students in high schools.

Howard Williams, national president, chats with new national FHA officers.



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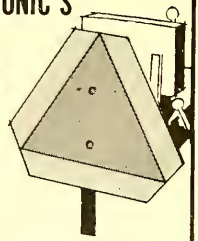

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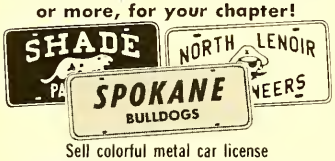

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Missouri Future Farmer, Don Larkin, with his FFA advisor, Mr. Frank Nowland, and Don's Charolais calf, LL Sir Larkin 027, the PRI record holder.

FFA Member Owns

World Champion

A CHAROLAIS BULL calf owned by Future Farmer Don Larkin, Chillicothe, Missouri, has set a new world PRI weaning weight record. The calf, LL Sir Larkin 027, is a grandson of Sam 951, a bull that has set nine PRI records for former Future Farmer Jerry Litton, also of Chillicothe.

Don's calf set the world record with an adjusted PRI 205-day weaning weight of 1,010 pounds. A member of the Jamesport, Missouri, FFA Chapter, Don purchased a bred dam from his father, Howard Larkin, in September of 1965 as a part of his supervised farming program.

Mrs. Howard Larkin explained, "When we agreed to sell Don one of our best cows, bred to our outstanding ranch herd sire LCR Sir Sam 44th, it was our hope that he was getting one of the really outstanding animals so he could build his own herd. We all anticipated a really fine calf, but not one that would set a world record. We all watched this calf with amazement. He was gaining at the phenomenal rate of five pounds per day and just never seemed to stop. He is still gaining at a fast pace and should weigh nearly 1,100 pounds when he is shown at the Jamesport FFA Chapter show. He is only eight months old."

The Larkin family purchased their small but quality herd of Charolais in September, 1964. Howard Larkin and son Don decided to use the registration name "LL Sir" or "Miss Larkin" to signify the blood line they are building. The Double-L Charolais Ranch designates Howard and Don.

The show ring has also attracted young Larkin. In August, 1965, Don took five of his oldest calves to the Missouri State Fair. It was the first time either Don or his father had ever fitted or shown cattle. Encouraged by their successful show results, however, Don went on to the American Royal in Kansas City with two of his heifers. The Charolais show at the Royal was the largest ever held and represented 27 of the best Charolais herds from 17 states. Don was not only the youngest, but the only boy showing against some of the best showmen in the country. When he came home with two second place ribbons, it spoke well, not only for his cattle, but for his showmanship ability.

This year the Larkins have eight head fitted for show competition.

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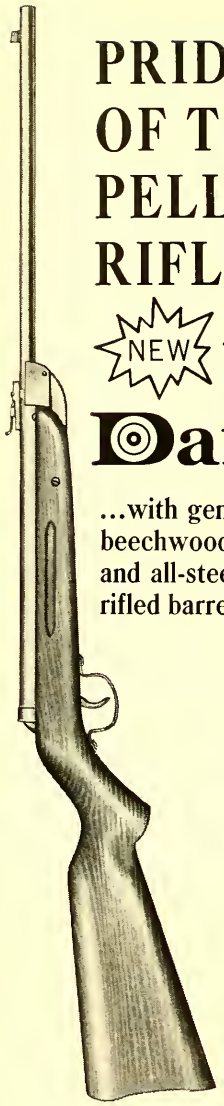

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Parliamentary Procedure

By
Dr. Jarrell Gray

HAVE YOU EVER attended a meeting where members had ideas they wanted to get before the group but didn't know how to do so?

Have you, in similar situations, seen individuals trying to present several ideas to a group at the same time?

Each of these situations makes for confusion, frustration, inefficiency, and results in failure to accomplish business.

Parliamentary skill in the use of main motions makes it possible for you to present an item of business at any FFA chapter meeting, or to a group, for consideration and action.

Presenting a main motion is accomplished by obtaining the floor and stating, "I move that . . ."

This is the only correct terminology to use if offering such an idea. Terms frequently used, and which are incorrect, are "I move," or "I make a motion."

It is proper, and in most cases desirable, to offer brief explanatory remarks prior to stating the main motion. It will help to explain the importance of your main motion. These remarks should not be in the form of discussion or debate since at this point it would be out of order.

A main motion must yield to all privileged, incidental, and subsidiary motions. In other words, any of these motions can be made while the main motion is pending.

Only one main motion may be before the group at a time. A main motion requires a second. If it does not receive a second, it dies.

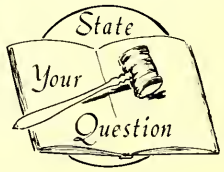
After the main motion has been seconded, the president should state the question and ask for discussion since it is debatable.

An amendment may be made to a main motion. Not more than one of the first rank, however, may be pending at a time. As soon as this amendment is disposed of, another may be proposed. This is also true of an amendment of the second rank, commonly known as an amendment to the amendment.

A main motion requires a majority vote for passage. After a vote is taken, the president should announce the result and effect of the vote. Too, one tap of the gavel should follow this announcement.

To present an item of business at an FFA chapter meeting, you should have a working knowledge of the main motion. This knowledge is also essential so members can participate in making decisions on main motions. And isn't it a pleasure to participate in a meeting where everyone knows how to get things done? Most FFA meetings are like this.

(Next issue: "Amendments")



Washington, D. C.

Q. May you have more than one second to a main motion? If so, how many seconds can be properly presented?

Ted Chandler

A. Only one second is necessary. It seems that it would be wrong to permit more than one second since these would have no value at all.

Do you have a question on parliamentary procedure? If so, you can get a direct reply from Dr. Gray, and your question may be selected for this column in the next issue.

Answers are based upon "Parliamentary Guide for FFA" by Dr. Jarrell D. Gray. For direct replies, send your question to Parliamentary Procedure, The National Future Farmer, Alexandria, Virginia 22306. Enclose a self-addressed, stamped envelope.

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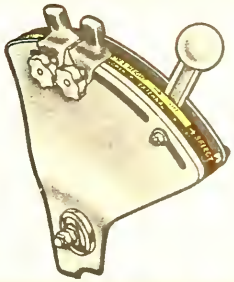

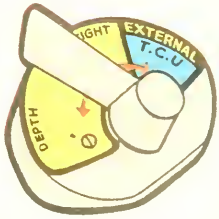

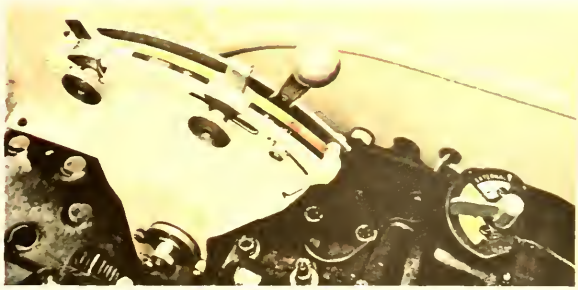

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Vice President Praises FFA

VICE PRESIDENT Hubert H. Humphrey praised Minnesota FFA chapters in an address at the recent dedication of a $65,000 speech therapy building for crippled children at Camp Courage, Maple Lake, Minnesota.

Funds for construction of the building were raised by more than 220 FFA chapters and thousands of FFA members participating in "Corn for Camp Courage" drives.

In his speech the Vice President said, "A special thanks to these FFA boys. I hope that you will permit me to single them out. I wonder if any of us realize just how much corn they had to pick to build that hearing and speech aid facility. How good it is that young men saw the need of helping others."

FFA Members Go To College

WHO SAYS VO-AG students and members of the Future Farmers of America don't go on to college? More students than ever are going to college even though they plan to farm. Others seek careers in ag-related fields.

Consider, for example, the vocational agriculture students who graduated from Tipton, Missouri, High School. Eight of 13 students who graduated have their sights set on an education at the University of Missouri. The eight, with vo-ag instructor Roscoe Gibson, are pictured below.

Late changes required publishing this advertisement without a business reply card. You may write to the address listed for more information.

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Modern freight cars become a part of plant production by keeping a steady flow of materials moving onto assembly lines.

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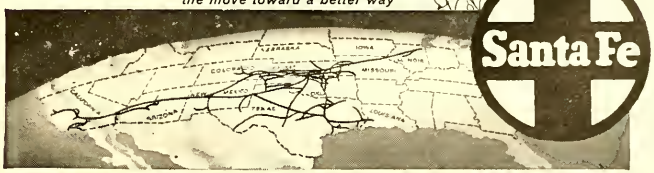


★ ★ ★ ★ ★ The Story of the

From among FFA members approved for the American Farmer Degree, these stand out. One will be named 1966 Star Farmer of America.

A Loan Repaid

Gary L. Organ
McLeansboro, Illinois
Central Region Star Farmer

AT 20, GARY L. ORGAN is a hustling young man who has, through his own initiative, amassed a $300 loan into assets of more than $62,000.

Gary's farming program this year includes half interest, with his grandfather, Clarence Higginson, in 175 acres of corn, 36 acres of soybeans, 65 acres of wheat, and 113 head of beef cattle. In addition he has purchased 80 acres and owns full interest in 40 acres of corn. Gary owns outright, or in partnership, about $20,000 worth of machinery.

In six years of completed farming programs, Gary shows a labor income of $21,059.79. His total assets amount to $62,740. Mortgages and other liabilities bring his net worth to $31,340.

Gary explained the development of his farming program. "I won a pony at the fair and soon sold it to buy a registered heifer. She was killed in a lightning storm, so Grandpa loaned me $300 with which I bought a cow and heifer calf. The cow had seven heifers, so I repaid Grandpa and was in the cattle business. These were registered show cattle, and I have won many trophies, plaques, and champion ribbons in the show ring."

It wasn't long before Gary's grandfather sold his grade cattle, and the two became 50-50 partners. Gary also persuaded his grandfather to use registered boars for the improvement of their swine herd.

"My livestock and crop enterprise continued to grow," Gary resumed. "I decided to stay with the farm and try to repay my grandparents for raising me. They made it possible for me to expand my farming program to the extent that it was selected as one of the top five in the state. Grandpa allowed me to make several of the management decisions during my freshman year in high school. For example, I decided we should top dress our pastures, buy a $1,000 herd bull, and plan a complete fertility program.

"My really big year was 1965. I purchased 42 head of grade Angus cattle in partnership, a new 1964 truck, a 1961 pickup, a two-row sheller head for our combine, and 40 acres of land. On my own, I bought a new tractor and a full set of equipment. I also rented a 330-acre farm of which 250 acres are tillable. I was in business," he concluded.

Gary has full responsibility for farming 410 acres and half of the responsibility for the cattle operation. He is in complete charge of the swine program. Gary's efficiency achievements during the current year indicate the kind of goals he sets for himself. Note these:

1. Maintained a 100 percent calf crop.
2. Produced 650-pound calves in 180 days.
3. Averages 8.2 pigs per litter.
4. Grows 125-bushel corn.

Gary averages 8.2 pigs per litter in his swine program.

Besides running a successful farming operation, Organ has found time to serve the FFA and his community. During the past school year, Organ was president of the Illinois FFA Association. "During the past year, I traveled more than 37,000 miles by car, bus, train, and plane representing the Illinois FFA," says Gary. "Although it took a lot of time away from my farming operation, my FFA experience has helped me in meeting and working with people," he adds.

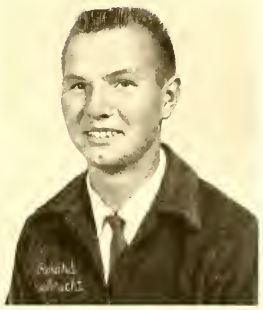
Organ has served as a member of the Hamilton County Fair Board, a member of the Aberdeen Angus Breed Association, and as president of the Farm Bureau's Young Peoples Committee. In addition he has been an active member in his local church.

"Use common sense and keep good records," is Organ's advice to young men starting out in farming. "William Brinkley, my vo-ag teacher in high school, got me off on the right foot by stressing the importance of good records," says Organ.

Gary considers this latest honor as interest paid on that original $300 loan from his grandparents. But this interest should be recorded for their caring, not for cattle.

Star Farmers ★ ★ ★ ★ ★ ★ ★

Young Man With A Plan



Richard W. Engelbrecht
Madison, New York
North Atlantic Star Farmer

DICK ENGELBRECHT, can already tell you what he is going to do four years from now. That's not surprising though, for Dick has always looked far ahead and then organized his actions in a beeline to his future goals.

This Madison Central High School Future Farmer owns and operates a 252-acre dairy farm near Madison, New York. He has a herd of 39 producing dairy cows, with 20 heifers and calves coming on as replacements. Included in the herd are high quality registered Holsteins and Ayrshires.

His plan-ahead method of doing things has earned Dick assets of $76,360, including land, buildings, machinery, and livestock. Mortgages and other liabilities bring his net worth down to $38,865. His total (in-school and out-of-school) labor income comes to $26,955.71.

"When I was in grade school my father was confined to a hospital, but my brother and I decided we wanted to keep the farm in operation," Dick explained. It also helps explain Dick's plan-ahead way of reaching sought-after goals. Dick just naturally prefers to aim for the larger, more remote goals instead of the smaller, quick ones so often sought by other young men his age.

Make no mistake, Dick's kind of planning means foregoing immediate satisfaction and plenty of hard work. He explains, "In April of 1954, the hired man left, and my brother and I decided to continue alone. At the time, the farm consisted of 92 acres and 25 head of mostly grade cattle. The machinery was all horse-drawn, and the crops were old stands of hay. This was a very hard year. The buildings were cold in winter and in dire need of repair. Manure had to be carried 50 to 75 feet by hand to the upper part of an old-fashioned, split-level barn."

But, Dick had his eye on the long range goal of what the farm could become. The barn was completely remodeled with Dick doing all of the wood, glass, and masonry work himself. To improve the pasture situation, he plowed and reseeded most of the land. He also instituted an Owner Sampler Herd Testing program.

For one thing, Dick found out that his herd average was only 6,000 pounds of milk per cow. "This demonstrated to me very clearly that large scale improvements in every phase of farm management was needed," says Dick. "Hay was the chief roughage; therefore, my first purchases were for machinery to harvest hay, a new mower and conditioner, and a new 17-disk grain drill to improve seeding. With this drill I have seeded over 125 acres of alfalfa, timothy, and clover mix," he concluded.

Dick worked just as hard at building up his herd average. For one thing he made a wise purchase of a registered Ayrshire cow. This cow will easily produce 100,000 pounds of milk in two more years. She has calved seven times and is due again before her ninth birthday. This and the other cows in his herd were bred to the best bulls offered by the New York Artificial Breeding Cooperative.

With these improvements, Dick Engelbrecht was already at a far-ahead point in time and organizing his plans. "With my debts paid, rent paid, and $1,000 in the bank, I decided my best chance to expand was to buy my own farm," says Dick. "I saw many, many farms before I purchased the present one. As I traveled the area, I noted that one of the major factors of a good farm was its soil type. Because my credit rating was good, the former farm owner agreed to hold the entire mortgage himself, with a $1,000 down payment."

Richard, left, and teacher Durwood Carman with top cows.

Dick took possession of the farm on June 15, 1965, and two months later he married. Dick and Gail, his wife, have spent many hours remodeling the house.

The barns were in about the same condition. Dick has succeeded in some remodeling and repair to provide for an efficient dairy operation. As you would expect, Dick has many plans. Among other things, a new silo is planned for construction this year. He's not satisfied with his average milk production of 12,452 pounds per cow. As Dick says, "In the future I plan to develop what I have to its fullest."

★ ★ ★ ★ ★ The Story of the

A Dairy Tradition Lives On

Frank Louis Albert, Jr.
Stanwood, Washington
Pacific Region Star Farmer

WITH DAIRYMEN GOING out of business everyday, Frank Louis Albert, Jr. has found the way to successful dairy farm establishment and profit. Both are traditions in the Albert family.

Frank's grandfather, also a dairy farmer, came to the United States from Switzerland and settled in Washington. Today his sons are still dairymen with a combined total of 450 milk cows. To carry the dairy tradition into yet another generation, Frank Jr. has developed an enterprise which includes ownership of 97 acres of land in the fertile Stillaguamish River Valley. He rents an additional 65 acres in

Frank does his own milking in these modern facilities.

partnership and owns 150 head of Holstein cows, 125 of which will soon be milking.

In all, Frank has assets of $120,550. Liabilities of $53,800 bring his net worth to $66,750. His farming program has shown a labor income of $35,566 during the six years covered by his records.

Frank's first project was a Jersey heifer. In March of 1961, his freshman year in high school, he made his first business transaction with the local bank. He borrowed $400 to purchase two registered Holstein heifers. To repay the loan, Frank had his father subtract the money from the milk check for his cows and from his wages for farm work on the home place. He also helped a neighbor as relief milker for his hired man.

When Frank was a sophomore in high school, his father turned the entire testing and culling programs over to him. During school, he also made many improvements and instituted new ideas to improve the dairy. He constructed scrapers and loading ramps in the vo-ag farm shop. An open-air calf barn was made by removing a wall from the old stanchion milking barn. Frank and his father constructed a new six-stanchion parlor, doing all the work themselves except for wiring and some plumbing.

Frank had an opportunity in May, 1964, to purchase an 80-acre dairy farm next to the 17 acres he already owned. Arrangements for financing were made through the local bank to purchase cows and equipment, and with the owner (who considered Frank a very good risk).

Frank explained the arrangement. "After talking with my father about purchasing the farm, we decided I should talk to the local banker about borrowing the down payment. With my father as a co-signer, a loan for $16,500 was secured, of which $15,800 was used as down payment on the farm. I also purchased a tractor. The purchase price of the farm was $55,000, including 18 cows, and I have already paid the original owner $22,000."

Since purchasing the farm, Frank has cross-ditched and put in drainage ditches around 40 acres of pasture. He has poured 120 yards of concrete slab, constructed individual loafing stalls, and a seven-stanchion milking parlor. Also, he has revamped the old farm house and out buildings, and is painting and fixing other buildings.

Due to the rising cost of his selective breeding program, Frank contacted Phiefer Bros. of Wisconsin and became the area representative for their organization. He owns a liquid nitrogen tank and selected semen for his own breeding program. He keeps records and does all insemination for his herd and his father's herd which total 300 animals.

He has lately become a member of D.H.I.A. electronic data processing program which calculates amount of feed being fed each cow, her milk production, and what the cost of milk production is for animals tested in the herd.

Frank has won recognition as Star Green Hand, Star Chapter Farmer, and president of his senior class. He was runner-up twice for the state Dairy Foundation Award before winning in 1965. He then was selected as Pacific Regional Dairy Award winner and represented this area in the national finals at Waterloo, Iowa.

Star Farmers ★ ★ ★ ★ ★ ★ ★

I See A Bright Future In Farming

Ralph G. Smith
Booneville, Mississippi
Southern Region Star Farmer

"I SEE A BRIGHT future in farming," comments Buddy Smith, Star American Farmer of the Southern Region.

To prove his point, Ralph G. Smith (better known as Buddy) has developed a partnership enterprise with his father that includes 114 head of high quality Polled Hereford beef cattle, 108 acres of cotton, 350 acres of soybeans, 32 acres of corn, and 729 acres of pine and hardwood forest.

The partners own more than $70,000 worth of farm machinery, and Buddy has earned $14,000 doing custom work for neighbors. Buddy has assets of $81,046 and liabilities of $6,925, for a net worth of $74,121. He has earned a labor income of $89,297 since joining the FFA.

It should be noted that Buddy has added another ingredient to his farm partnership which he also terms a success. He married his childhood sweetheart, Josie Lester, and on a snowy day this past January, the third generation Smith, Lori Sue, joined the partnership.

Buddy's dad works as a school administrator, and Buddy has always had a major share of the responsibility for operating and managing the farm. He best describes the farm and its setting. "In Mississippi the state is divided into several agricultural areas. Much of the most fertile land is in the delta section of the state, by the river, where the depth of the top soil in some places may be forty to sixty feet. There, farmers are plantation owners. Sections of land make one farm. Deltans say there are two sections of Mississippi, or rather two Mississippis . . . Mississippi, and the Mississippi Delta. Prentiss County, where I was born and reared, is not delta. It is considered the hill section of the state. The average farm in Prentiss County is composed of only 96 acres.

"Within three months of my birth, father purchased from an absentee landlord a 1,275-acre run-down farm. When I reached high school, my father's farming operation consisted of 1,340 acres of improved farm. However, with all the progress that had been made there was still much to be done to make it the farm it was capable of becoming.

Thus, in 1960, Buddy became a freshman at Booneville High School in the vo-ag class of Mr. Merril T. Cartwright, himself a former FFA member who served as a national FFA vice president. Buddy says, "He became my close friend and advisor. The land I already loved, but now I had an organization that was especially for boys like me."

Because of Mr. Smith's outside work, Buddy was brought in as a partner during his freshman year. "I bought half of dad's entire farming operation including cattle and equipment; everything except land and buildings. A surprise came on November 1, 1965, when my parents rewarded me for my years of help by giving me a deed to 40 acres of the most fertile land on the farm. So, with my eyes on the stars and my feet planted firmly in the soil, my career was launched," he explained.

Buddy and two employees cultivating field of soybeans.

From this point, father, son, and teacher worked together to build up quality and quantity of production of the Smith farm. Buddy talked about some of these improvements. "We have installed over 150 feet of drainage culverts, constructed diversion and V-ditches, and sodded outlets to drain low places. Terraces have been built on cotton land.

"Over seven hundred acres of our farm is covered with a natural growth of pine. Thousands of seedlings have been planted where needed and are protected with a good fire control program. Since the partnership was formed, we have added two huge diesel tractors and accessories, a breaking plow, three four-row cultivators, a four-row planter (with pre-emergence attachment), several new cotton wagons, a cotton picker, a spray rig, and a large combine with pressurized cab."

What has been the result? Buddy has received state recognition for production of 40 bushels per acre with his soybeans; his corn produces 100 bushels per acre; cotton averages 900 pounds of lint per acre; and his record of winnings in shows and fairs (more than $1,000) attests to the quality of his Hereford cattle.

KANSAS CITY

By John M. Pitzer

THE NOW-FAMOUS NATIONAL FFA Band will lead off the action in Kansas City October 12-15 when 10,000 Future Farmers arrive for the 39th National FFA Convention.

National FFA President Howard Williams says that "plenty of action is planned for all Future Farmers who attend this better-than-ever convention."

Every FFA chapter in the nation is entitled to send at least six representatives. Each state association will also send official delegates. President Williams stated that the convention sessions are planned to execute business and promote leadership training, elect new officers, set new goals, recognize outstanding achievements of members and chapters, and to recognize those adults who have helped the FFA.

All sessions of the convention will be jam-packed. Action begins as early as a week before the convention when the national officers come to town for an extensive round of meetings. By Tuesday, October 11, when official delegates register, the huge Municipal Auditorium will be humming. Tuesday evening is a Vespers program to set the spirit for the three-day meeting.

Activity starts early on Wednesday morning with registration for chapter representatives before the opening session. Wednesday afternoon will be the American Farmer Degree ceremony—honoring members for their work and presenting them with the highest degree of FFA membership. The National Public Speaking Contest finals and presentation of Gold Emblem Awards to the top FFA chapters in the nation will spotlight the evening session.

Some highlights of the convention's program include: entertainment by the reactivated National FFA Chorus, an FFA talent show, a dramatic pageant by Future Farmers, the 1966 "Four Star Farmers" movie, and the Firestone Show. State associations will have exhibits depicting ideas to use in promoting the 1967 National FFA Week theme, "Agriculture — Strength of America."

The main speakers for the convention are Kansas City Mayor Ilus Davis; Mr. Kenneth Cheatham, Star Farmer of America in 1948 and now with the Program Development Division of the

Photo: 1967 Official FFA Calendar

HERE WE COME!

American Farm Bureau Federation; and Mr. Walter Harrison, manager of the Georgia Electric Membership Corporation.

Your official delegates will be voting on a variety of constitutional changes and discussing recommendations made by the Ad Hoc Study Committee. This committee reviewed the organization in 1966 and recommended ideas for improvement. The convention program has been arranged so that more time can be spent on business discussions.

This year some new features have been added to the activities in which every Future Farmer at the convention can participate. They are especially set-up for the chapter representatives.

A special area has been set aside for agriculture career opportunity exhibits. These exhibits will have the latest information about jobs and career ideas available in agriculture today. Qualified personnel will be at every exhibit to answer your questions. The exhibits will be sponsored by national trade associations and professional societies.

Other activities will be held in conjunction with the new American Royal Dairy Show scheduled October 8-12. October 11 (the day before the FFA Convention begins) has been set aside entirely for FFA participation at the new dairy show.

Although it is not the official FFA Dairy Judging Contest, American Royal officials have organized three major activities for Future Farmers on October 11. They are (1) a mass judging contest which any individual FFA member can enter, (2) a dairy management contest, and (3) a dairy cattle show for FFA members to show their own cattle.

The Thursday morning session will include naming the winners of the National FFA Foundation Proficiency Awards. Each award goes to the top Future Farmer in America with the best dairy, poultry, electrification, farm mechanics, livestock, home beautification, crop, soil and water management, and horticulture programs. Presentation of the "Star Farmer of America"—the highest award a Future Farmer can receive in the organization—will be held Thursday evening.

Friday afternoon there will be a recess in the convention for all to attend FFA Day at the American Royal Live Stock and Horse Show. On Saturday morning, after the convention officially ends, the FFA Band will lead the American Royal Parade.

CONVENTION PROGRAM

TUESDAY, OCTOBER 11

10:00 a.m.
- Delegate Registration

11:45 a.m.
- Officer-Delegate Luncheon

12:00 noon
- Tours to Points of Interest and FFA Events for FFA at American Royal Dairy Show

8:00 p.m.
- Vespers Program

WEDNESDAY, OCTOBER 12

8:00 a.m.
- Registration

9:00 a.m.
- Opening Session
- Posting of Colors
- Address of Welcome—Mayor Ilus W. Davis
- Address—Mr. Walter Harrison, Georgia Electric Membership Corporation
- Meats Judging Contest

2:00 p.m.
- Conferring of Honorary American Farmer Degrees
- Address—Mr. Kenneth Cheatham, American Farm Bureau Federation
- American Farmer Degree Ceremony
- Awarding of Service Plaques
- Poultry Judging Contest

7:30 p.m.
- National FFA Band Concert
- National FFA Public Speaking Contest
- Presentation of National Gold Emblem Chapter Awards

THURSDAY, OCTOBER 13

9:00 a.m.
- Presentation of Farm Proficiency Awards
- Business Session
- Presentation of Distinguished Service Awards and Citations
- Pageant—"History of Old Glory"
- Livestock Judging Contest

1:00 p.m.
- Tours to Points of Interest

2:00 p.m.
- Business Session
- National Chapter Awards

7:00 p.m.
- FFA Talent Show
- Recognition of Donors to The National FFA Foundation, Inc.
- National FFA Chorus
- 1966 "Four Star Farmers" Movie
- Presentation of the Star Farmer of America

FRIDAY, OCTOBER 14

9:00 a.m.
- Salute to Foreign Guests
- Election of National Officers

11:30 a.m.
- Recess for FFA Day at American Royal Live Stock and Horse Show

6:15 p.m.
- Special Talent Program
- National FFA Officers' Night
- Firestone Show

Displays like the one below will make up the agriculture career opportunity exhibit which is to be a new feature at this year's National FFA Convention.

Increase Your Calf Crop

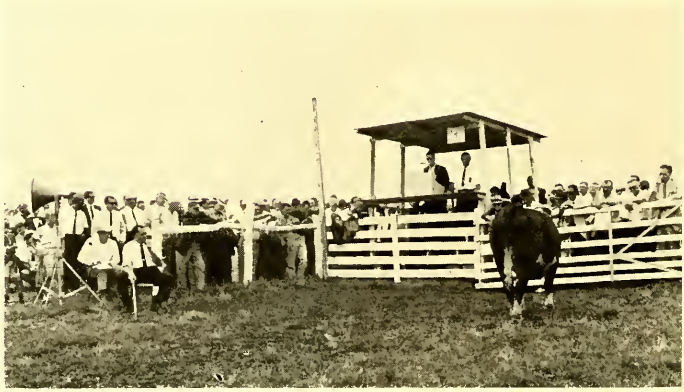
By Len Richardson

To cut calf losses you must be on hand and ready to give assistance during difficult or slow deliveries.

INCREASE THE POUNDS of calf weaned per cow bred and you will make money. But how?

Consider what would happen in a 100-cow herd if the calf crop is increased from 70 to 90 percent. With calves averaging 400 pounds, you increase the potential pounds of your calf crop by 8,000 pounds. That's like adding 89 pounds to the weight of each calf sold! Still you ask how?

Take a look at your herd's conception rate. Here's what would happen in a 100-cow herd with a 70 percent conception rate:



Dr. Jan Bonsma, seated inside fence on the left, describes reproductive capabilities of a cow from Virginia Polytechnic Institute's Hereford herd.

- Seventy cows would conceive on the first service and produce calves at weaning weight (200 days) of 400 pounds.
- Twenty-one cows would conceive on the second service and calve approximately 20 days later than cows conceiving on the first service. These calves will reach weaning weight at 360 pounds. Total pounds of calves weaned is 7,560.
- Nine cows conceive on third service and calve 40 days later. They have a weaning weight of only 320 pounds. Total pounds of calves weaned is 2,880 pounds.

All three groups produced a total of 38,400 pounds of calves. But note that this herd started with a 40,000-pound potential. In other words, this herd's loss is 1,580 pounds due to poor conception. That's approximately $390 worth of calves.

Here are some of the latest developments that may help you achieve these important goals regardless of the size of your herd.

Select The Right Cow

At a beef cattle reproduction clinic recently, we watched Dr. Jan Bonsma, from the University of Pretoria, Pretoria, South Africa, accurately appraise a cow's reproductive history without prior knowledge of the cow. See chart, "Bonsma's High-Fertility Cow."

Feed A High-Energy Ration

Experiment after experiment has shown that heifers on a high-energy ration are more likely to exhibit one or more heat periods during the breeding season as compared to those on low-level rations. Getting heifers through the winter is not enough. They should have access to a high-plane ration following winter and throughout breeding.

CHART

Dr. Bonsma's High-Fertility Cow

Head—should look feminine and have slick, smooth hair. A low-fertility cow will have a coarse head with bristly, dry hair on the crown.

Lower Jaw—should be fine and appear to fit, whereas in a low-fertility cow the lower jaw seems to be overshot. It also tends to look heavy and rounded.

Eyes—should look calm and be of medium size. In the low-fertility animal, eyes appear large and prominent.

Horns—should be dark in color, whereas in a low-fertility animal the horns appear flinty white, sometimes shiny.

Shoulder Blade—is light and comes to the top of the back. In the low-fertility animal, it will be heavy, fleshy, and the top of the blade will be lower than the top of the highest point on the back.

Ribs—appear to be the same length and covered with smooth hair, whereas in the low-fertility cow the ribs will appear to differ in length with the front ribs appearing longer. The hair will appear dry and long. Fat deposits will also appear on the mid-rib of low-fertility animals.

Rump—is long from hipbone to pin bone. In an unfertile animal, the distance is short.

Hip to Kneecap—is long, whereas in low-fertility animals the distance appears short and the kneecap is too high.

Neck—is lean and smooth, whereas in low-fertility animals it is heavy and masculine.

Brisket—is lean with a skinfold along the edge, whereas in the low-fertility animal it is heavy with no skinfold. The brisket of the low-fertility animal also appears to slope in a downward position.

Hindquarter—is square with a tail that will hang down straight. Low-fertility animals have a rounded hindquarter and a tail that can't hang straight.

Hair—is smooth and uniform in color, whereas in the low-fertility animal darkening of hair often appears on sides, flanks, neck, and cheeks. This is the darkening pattern often seen on bulls. Long dry hair on the udder and teats is another sign of a low-fertility cow.

Chart is based on notes taken during a demonstration by Dr. Bonsma.

Try Timed Breeding

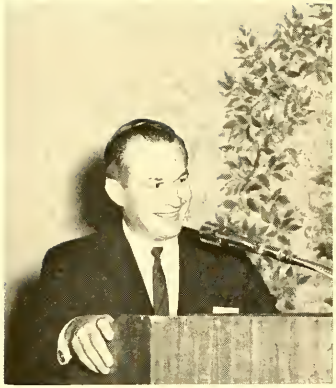
Animals on feed containing Repromix for 18 days will come into heat 1½ to 4 days following the end of the feeding period. This and other new compounds are now commercially available. (See "Looking Ahead," August-September, 1965.) But at the outset, remember synchronization will not work if the cows are not exhibiting a normal cycle prior to feeding.

Cut Calf Losses

A good place to start is by preventing injury to the calf caused by difficult or slow delivery. This means you must be on hand and ready to give assistance if needed. Workable cow handling corrals, a stall to restrain the cow during assisted delivery, and a mechanical calf puller are important investments.

Make sure the calf begins breathing regularly. If a newborn calf is having difficulty breathing, try lightly scratching the inner lining of the calf's nostril with a straw or small stick. This stimulates several reflex actions including the breathing mechanism. Disease prevention and prompt treatment is, of course, very important.

Flashback on Donor Day



Luncheon speaker was Hon. Doyle Conner, Florida Commissioner of Agriculture, a past national president of FFA.

Mr. Byron Nichols, Chrysler Corporation, reports the action of National FFA Foundation Sponsoring Committee.

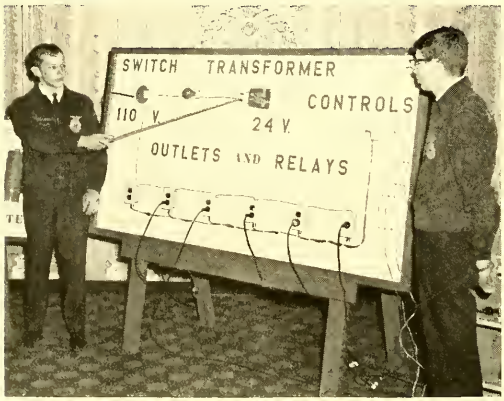
DONOR REPRESENTATIVES to the Future Farmers of America Foundation met in Washington, D. C., for their annual meeting with the Board of National FFA Officers and the Board of Trustees of the Foundation.

The pictures here show some of the highlights of the one-day meeting held in the Washington Hilton Hotel, July 27, 1966. In addition to the speakers and other program features, Mr. Walter Arnold, assistant commissioner for vocational and technical education, welcomed the group of FFA friends to the meeting.

Howard Williams, national FFA president, related thanks to the donors from the 454,000 Future Farmers of America for their support. He especially told them about the importance and encouragement Future Farmers gain from awards and competitive programs such as the FFA Foundation Proficiency Awards contests.

Chicago Radio Farm Director, Mr. Orion Samuelson, told donors how FFA prepares boys for agricultural careers.

The Mercer Crossroads, Pennsylvania, FFA Chapter gave a demonstration on "Remote Control Circuits on the Farm."



Dunn, N. C., FFA Quartet members Tyrone Armwood, Victor Fryar, Gerome Langston, and Haywood Stewart.

PRECISION PLANTING

A new precision environmental planting machine remedies soil crusting, and speeds near perfect stands.

By R. E. Rothfelder

A PRECISION environmental planting (PEP) machine now being demonstrated on the West Coast promises not only to remedy soil crusting, but to promote faster, near perfect stands.

Environmental planting is the practice of mechanically banding a soil amendment (an organic material with a low plant-nutrient content) over seeds to prevent soil crusting and to promote seedling emergence. This is not a particularly new concept. Variations on the theme have been popping up from time to time over the past dozen years, some employing polyethylene strips for added protection, others using highly sophisticated and expensive equipment.

But each of these systems, while providing encouraging results, was invariably too expensive to make it practical.

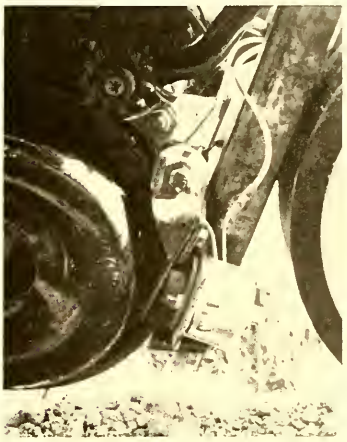
Ideally, a precision planting system should be at least 85 percent effective, that is, assure the grower of an 85 percent stand. It should also be able to use an economical per-acre rate of soil amendment which could be applied with simple equipment.

A Major Breakthrough

Up to now the biggest obstacle to the system has been the lack of an "absolute precision planting machine." Today, however, a machine does exist which appears capable of satisfying all the above requirements.

A two-row planter equipped with vermiculite hoppers and applicators altered to clump plant tomatoes for harvest.

Close-up of applicator that is actuated electrically in time with the seed drop.



The PEP machine's "precision" places each seed in a precise and known relationship to every other seed. It is "environmental" because a seed cover will follow the seed and create the perfect environment, eliminating in the process a wide range of previous growing hazards. The cover is vermiculite, derived from the alteration of mica, or vermiculite combined with pesticides.

A recent one-year test program, using a precision environmental planter, produced a 96 percent stand of cotton and an 85 percent stand of single lettuce seeds. Less seed will be needed, and the time-consuming practice of thinning will be all but eliminated. Combined with the vermiculite, fungicides and insecticides will protect against disease and insects. Chemically-treated vermiculite, as used in this system, would prove far cheaper in per-acre costs than if chemicals were used individually.

The new PEP machine under development in California is an applicator device tied into the seed-drop mechanism of a precision planter. This applicator interrupts the flow of vermiculite, dropping the material only where a seed has been placed. This cuts the per-acre use of the mineral from the previous average of 10 to 15 bags to an economical two bags.

(Continued on Page 86)

What are they looking at?

IN MINNESOTA, THESE youngsters could be watching a hand milking contest, observing a tree planting, seeing a cow for the first time, learning about trees, or listening to a talk on health hazards from smoking.

FFA chapters have found elementary school students interested listeners. One little girl wrote, "Thank you for letting us get near the cow. I really have not seen a cow close up before, but I only wish the cow had not moved away from the man so I could have seen the face of the cow."

Chapter, district, and state FFA officers made encouraging and optimistic reports at the state leadership camp in the area of elementary school contacts. The officers can make use of the program to exercise leadership, public speaking, and citizenship. The young minds of children are impressed with the world of plants and animals. Also, many boys in the upper grades find out about the FFA for the first time and may become active members in the future. It can also be a good public relations program.

Arbor Day tree planting ceremonies (an official statewide celebration) were conducted by many chapters throughout Minnesota. A typical program was conducted by the Ivanhoe Chapter for all elementary students at the Ivanhoe Public Schools on Arbor Day (April 29). It consisted of a song, "God Bless America"; the reading of the Governor's Proclamation; the poem "Trees"; and a talk on "The Value of Trees."

Following the ceremony, five Colorado blue spruce were planted on the school grounds. One tree was dedicated for each of the second through sixth grades.

The Faribault Chapter took advantage of June Dairy Month to carry out a program for elementary schools. They took a Guernsey cow onto the school grounds and then, surrounded by the wide-eyed kids, they answered all sorts of questions like: "What do cows eat?" "Do cows eat snakes?" "What are those things under the cow?"

The state FFA association also has conducted various activities in the project. They invited elementary youngsters to watch the hand milking contest at the state FFA convention. They are providing free agriculture books donated by FFA chapters to school and playground libraries.

At left: Mabel, the Guernsey, goes to school to help the FFA members give the kids a lesson on the source of milk.

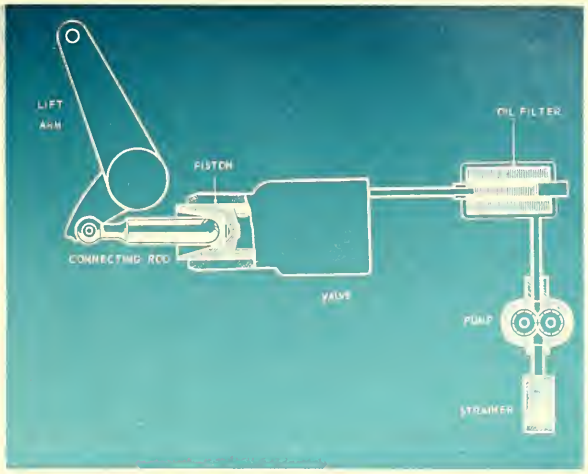
Below left: Future Farmers explain to these school kids how a tree grows and how to figure the age of the trees.

Below center: These elementary school kids watch Future Farmers plant a tree at the school grounds on Arbor Day.

Right below: Wide-eyed kids can ask a thousand questions about a cow, and FFA members had their answers ready.

Tractor Hydraulic Systems

By Melvin Long



ALMOST ALL PRESENT-DAY tractors are available with some sort of a hydraulic and hitch system. Each system is slightly different, but most operate on the same basic principles. Here are tips that will enable you to use your hydraulic system more effectively.

Most hydraulic systems are composed of an engine-driven pump; one or more control valves; one or more hydraulic cylinders, either enclosed within the tractor, or separate and movable; and the necessary metal lines and flexible hoses to connect the various parts. The entire system is filled with oil as the working fluid. No one tractor will have all items mentioned, so study your owner's manual to see which ones are applicable.

Be sure to use the recommended type of hydraulic fluid and keep it at the proper level. Some parts operate with clearances of only a few thousandths of one inch, so it only takes a little wear to make the system work improperly, or even not work at all. Many systems use SAE 10 motor oil or automatic transmission fluid. However, consult your owner's manual to be certain. Some systems require different grades of oil for cold-weather.

If you have an older tractor with a hydraulic system that becomes noisy and sluggish in cold weather, consult your dealer about improved hydraulic fluids. Some systems for which SAE 10W motor oil is specified can be improved by use of 5W20 multiple viscosity oil.

In most systems, the hydraulic pressure increases with an increased load on the hitch. Somewhere (generally inside the lift) is a relief valve to prevent this pressure from going too high. This, in turn, determines how much the hitch will lift.

If you need more lifting capacity, consult your dealer. The manufacturer may have approved a higher relief valve setting, based upon field-test experience after your tractor was manufactured. However, this adjustment requires special know-how, so have it done by your dealer.

When you overload the hitch, the relief valve can generally be heard as a distinct "whirr" or "buzz." Do not use the lift for an extended period with the relief valve operating, or the oil will overheat.

If your tractor has a hydraulic-pump disconnect, be sure to use it for work not requiring the hydraulic system. This increases the lift of the pump. Disconnecting also improves fuel economy and makes starting easier in cold weather.

Your tractor may have a flow-rate regulator, either on the pump or as part of the control levers. Use the high settings when operating a manure loader or similar device, and lower rates when using a plow or disk harrow. This lower rate keeps the hitch from being too jerky in operation.

Check for pressure-line leaks by looking for signs of escaping oil or collection of dirt in oily areas. Suction leaks can be detected by squirting oil on suspected joints and fittings. If leaky, the oil will be sucked into the line. Any major repairs on these lines are a job for your dealer.

When using a remote cylinder, be sure the break-away couplers are properly supported on the tractor. They should also be supported on the implement to prevent turning interferences. Keep twists out of hoses. Bends don't hurt hoses, but kinks do. When hooking-up, wipe connectors clean. Use dust caps to protect couplers when hoses are disconnected.

Your hitch linkage is designed to do several things: 1. Lift the implement for transport. 2. Provide depth regulation in working position. 3. Transfer weight to the rear wheels for improved traction.

Some tractors have an adjustable lift link on the right for side-to-side leveling of implements. Others have both links adjustable. If you have this type, be sure you set them to the length recommended in your manual. Special settings are used with some implements to get better lift ranges. Improper setting may result in damage to the hitch or implements, or in poor operation.

If your tractor has a drawbar separate from the mounted implement hitch, use the drawbar for towed implements. If a drawbar in the hitch is provided, use it according to the directions. If the power-take-off is to be operated, use stabilizer braces to prevent whipping the PTO shaft on the drawn implement.

When parking, lower the attached implement to the ground. This prevents accidental lowering while you are working around the implement. With the lever in lowering position, your implement will not raise unexpectedly when you start the tractor.

When transporting mounted implements, take it easy over rough ground. Bouncing implements create high pressure in the hydraulic system. This may burst the system.

Some larger tractors have a three-point hitch described as Category Two. This refers to the size and distance of holes in the hitch balls. You can use the small Category One tools with large hitch balls by using proper spacers, obtainable from your dealer. Do not attempt to operate without them, or you will probably cause damage.

Flowers of all kinds abound in Hawaii. Students above grow anthuriums. Below, FFA'ers grow Hawaiian orchids.

Orchids
Land Laboratories
Piggeries

THE FFA IN

HAWAII

HAWAII'S BEAUTY IS easier to sense than to describe. And, as the photos accompanying this article best illustrate, Hawaiian Future Farmers are devoted to that beauty.

FFA Off To An Early Start

The Hawaiian FFA movement actually got its start in October of 1928. At that time, some 18 teachers of vocational agriculture met in Honolulu with Mr. W. W. Beers, territorial supervisor, for an annual conference. Mr. Nathan Ambrose, just employed as vo-ag instructor at Lahainaluna, brought to the conference first-hand information about the national organization of FFA which was rapidly taking shape on the mainland.

The idea was immediately accepted, and the organization of local chapters and a territorial association was planned. Reports have it that the enthusiasm of these men for the FFA ran so high that they ran home to see who could establish the first local chapter and qualify for charter number one in the Hawaiian Association. At any rate, the records show that the Konawaena Chapter won the honor. In rapid succession during 1928-29, 17 local chapters were formed and chartered. These chapters had a combined membership of 280.

Delegates from 17 island chapters then met on December 28, 1928, at Lahaina, Maui, and drafted a territorial constitution. Mr. Beers became the first advisor, and Hawaii was issued National Charter No. 13 in April 1929, just five months after the national organization was formed.

Quite A Difference

What's it like to study vocational agriculture in Hawaii? If you were there you would quite likely study orchid culture. But that's not surprising since Hawaii is one of the world's largest sources of orchids, flowers, and plants.

Yet, you would probably find it a little strange to call your swine operation a piggery. Much of this state's Kalua Pua (pig) goes to supply the famous Hawaiian feast, holiday, and luau market.

In short, FFA in Hawaii is as varied as the people (Hawaiians are of many races) and topography of the eight main islands and 50 lesser ones. Still, the Hawaiian mood is open to change. The school farm, for example, is giving way to land laboratories. The greatest single difference is found in the size and scope of land laboratories as compared to the school farm. Maximum land area for a standard land laboratory is 2.5 acres. They seem especially well fitted to both Hawaiian agriculture and to learning.

Meet Robert Ahia—State Star Farmer

To better understand Hawaiian FFA, however, you have to visit with a fellow Future Farmer, Robert Ahia lives on a family farm of 190 acres in the Kamuaoa area of Kau. He raises cattle, poultry, and swine while he "eagerly anticipates the day when I can operate a ranch and piggery in Kau."

At the Princess Kaiulani Hotel in Honolulu, site of the state FFA convention this past April, Robert's farming program won him the title of State Star Farmer. He explained his farming situation, "We have had a sizable landholding for many years. The opportunity to develop and utilize this land was present, but no one took the initiative, because my brothers went to school in Hilo and my dad was employed there." Robert's mother also teaches in Hilo and can come home only on the weekends. In addition to his farm chores, Robert does all the housework and cooking. Still, he has

(Continued on Page 78)

National FFA Executive Secretary Paul Gray congratulates Star Farmer Robert Ahia during Hawaiian visit.

At another school land laboratory Future Farmers were growing coffee.

Here Future Farmers are practicing principles of mist box propagation.

National FFA President Bobby Jones was the first officer to visit Hawaii. He left this sign on March 29, 1934.

Hawaiian Future Farmers are shown testing different bulb onion varieties at their school's land laboratory.

Left to right, Vo-Ag teacher W. B. Coleman inspects a new load of silage as Ray and Louis Terrell look on.

THE TERRELL BROTHERS

Fatten Cattle Without Grain

By Len Richardson

"WE PRODUCED THESE good and choice steers for a feed cost of 15 cents per pound," said Virginia American Farmer Louis Terrell matter-of-factly when we visited the Terrell operation recently. Considering that in this part of the country a manager who produces beef for a feed cost of 20 cents per pound of gain is above average. Terrell's statement held a secret you should know about.

The success of the Terrells' new feeding method took on even more a significance when he told us, "Before adopting this method it was costing us 26 cents per pound to produce this same quality beef."

So what's the secret? They feed their steers only high-quality silage! That's right, only silage, no grain or hay is fed. Steers are put on full silage feed when they weigh about 700 pounds; when sold, they average over 1,000 pounds.

These facts didn't surprise Wickham B. Coleman, teacher of vocational agriculture and FFA advisor at the C. T. Smith High School where three of the Terrell partners graduated. "Wildon Terrell has already earned his American Farmer Degree, and Louis will be going to Kansas City this year to accept his. I expect Ray, the other brother,

Terrells' cattle self feeding in their horizontal silo.

Louis Terrell begins cutting silage at the hard-dough stage when the dry matter is between 35 and 43 percent.

Far right—Louis Terrell unloads a truck of beef-producing silage. He receives his American Farmer Degree in Kansas City, Missouri, this October.

will be making a similar trip in the coming year, or the next. These young men are early adopters who are quick to try any new idea that may mean extra profits," he said.

Their father, W. S. Terrell, owns the Ruther Glen Farm in partnership with the Future Farmers' uncle, M. S. Terrell, of Caroline County. The farm is a few miles from the town of Ladysmith, Virginia.

When Wildon and Louis joined the farming operation, a corporation was formed with the senior Terrells owning 30 percent, and each of the younger members owning 20 percent. Together, they own six farms with a total of 1,600 acres. About 550 acres produce crops, and another 500 acres are in pasture. The balance of the land is in timber.

The Terrells raise about 50 percent of the Angus calves they feed, and buy the rest. In addition, they raise and market around 700 hogs each year.

"We have our silage tested," said Louis. "We've learned as much from these as our soil tests. Mr. Coleman sends the samples in a plastic bag to VPI (Virginia Polytechnic Institute). Our last sample went right off the scale (see Silage Table). It analyzed 28.3 percent total digestible nutrients, 3.3 percent total protein, 1.8 percent digestible protein, and 42.7 percent dry matter."

The limiting factor in fattening cattle with silage alone is protein, but the Terrells added urea to their silage at harvest to increase the protein. Urea was added at the rate of ten pounds per ton of silage.

Corn harvesting began at the hard-dough stage of maturity when the dry matter is between 35 and 43 percent. "Our corn was at 42.7 percent dry matter which told us we were harvesting high-energy silage that would put on beef," Ray said. The silage table calls it the NE index, which is estimated net energy represented in 100 pounds of forage. The therms of net energy are the final form in which nutrients are used by animals for body maintenance, pregnancy, growth, fattening, or milk production.

	SILAGES	
QUALITY GRADES (1)	VPI - NE INDEX (4)	TDN (5)
Excellent	20.1 & up	24.1 & up
Good	17.1 - 20.0	21.1 - 24.0
Fair	12.1 - 17.0	16.1 - 21.0
Poor	12.0 & down	16.0 & down

Forage test and use this chart to improve your silage.

Actually, Louis admits they were a little dubious at the beginning. "A small amount of hay was fed with the silage for the first 45 days, because we were a little afraid of the silage alone. But when the hay feeding was discontinued, gains were actually made much faster," says Louis.

"Here is another innovation," said Wickham Coleman pointing to the above-ground tilt-up horizontal silos used in the Terrell operation. One is used for self-feeding about 125 head of young stock (350-500 pounds). Another is used for self-feeding 125 steers (500 pounds and over), and a third is used for feeding the cow herd of 130 cows. To prevent cows from becoming too fat, their time in the silo is limited.

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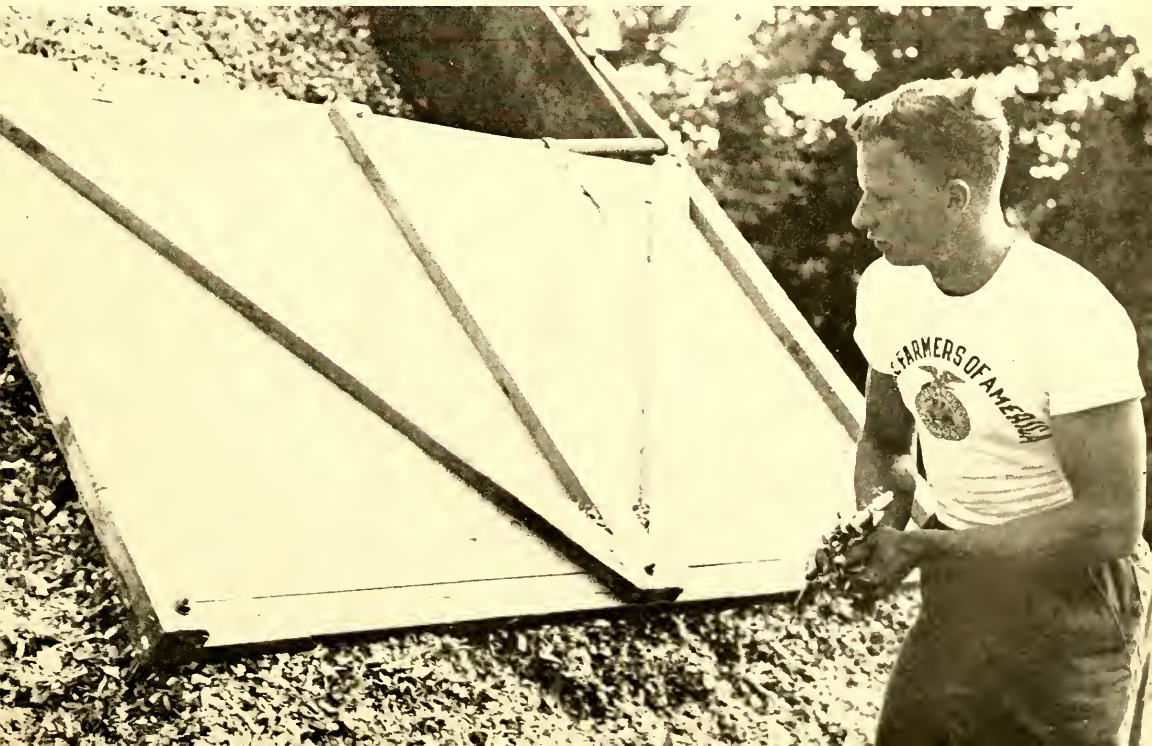

LIVING IN BALANCE

By Vivian Briggs

the social and spiritual you

HOW DO YOU WIN friends? Some people appear to make friends very easily. They fit into any group and make everyone feel at ease. Why?

On the other hand, you probably know at least one person who doesn't have many friends. Perhaps he acts as though he doesn't care. He says it doesn't make any difference to him whether people like him or not. Actually, he does care, because everyone wants to be liked. That is one of our social needs. The social you is an important part of your personality. It has to do with your ability to make friends.

We cannot be truly happy if we do not get along with others. We never will be really successful in the world if people do not like and trust us. It makes no difference how good looking we are, how smart we are, or how much money we have. Those things become unimportant if we have friends.

To have friends, you must be a friend. Would you choose you as a friend?

Make a list of the qualities you want in a friend. Look at yourself. Do you have these qualities?

One of the things you like about your friend Jane is her even disposition. Sometimes she feels blue, but she never takes it out on others. Neither does she mumble and gripe, even though she may feel real disappointment. Jane is socially mature and doesn't act like a baby. You enjoy being with her.

You really admire Dick—he is so dependable. If he agrees to do a job, you know he will get it done. No one needs to check or remind him. He is on time for appointments and never makes people late because of him. You can rely on Dick.

You like Mary's thoughtfulness. She never says unkind things to or about people. She is loyal to you and to her other friends. If a new girl starts to your school, Mary always makes her feel at ease and includes her in your group activities. Mary is a real friend.

You've noticed John is always interested in the things other people do. He lets them talk about their activities and doesn't try to "take the stage" for himself. Even if he prefers to do something other than what others in the group want to do, he graciously gives in. It's good to have John in your group.

Jane, Dick, Mary, and John have the qualities you admire and want in your friends. Make yourself a yardstick of social qualities and use it to measure yourself. On the yardstick mark these characteristics:

Friendliness means that you sincerely like people. You meet them with a smile and make them feel happy about themselves and others.

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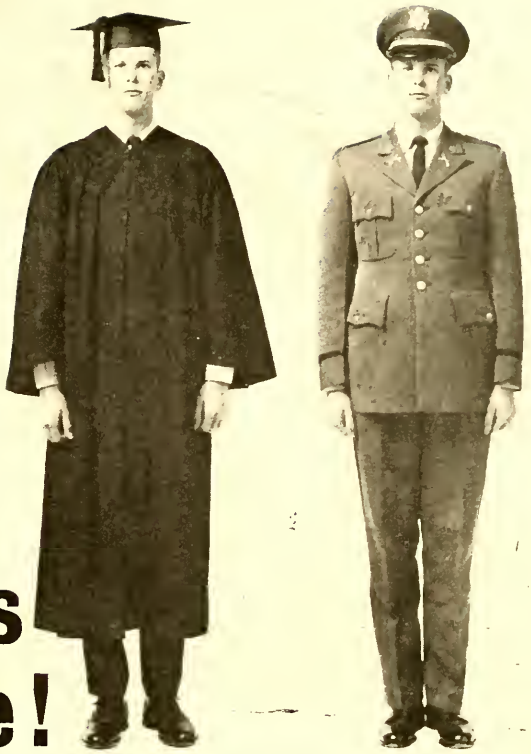

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As an Army ROTC man, you'll spend a few hours each week in classes with men like yourself, men of an independent turn of mind, men who make their own decisions. Of course, you can wait to be told what to do. But if you'd rather do your own deciding, mail the coupon today. "WHERE THE LEADERS ARE" will show you how you can double your opportunities. There's no obligation.

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I plan to attend_____ college or university

F-4

LIVING IN BALANCE

(Continued from Page 40)

Integrity is an important quality in getting along with people. It means uprightness, honesty, dependability, and loyalty.

Consideration means more than just being thoughtful of others. It means courtesy—remembering that other people have feelings. It means graciousness—that ability to make others feel a little special and important.

Sincerity means that you are true, genuine, and unaffected. The sincere person is real all the way through. He is true to himself and lives up to his convictions.

How do you measure against this yardstick?

Who Are Your Friends?

Your first friends are your parents. Then there are your brothers and sisters, if you are fortunate. Other members of your family are your friends, as are other adults. Your teachers, your clergyman, the storekeeper, and the neighbor next door are among your adult friends.

You have friends your own age. You have boy friends and girl friends, and you enjoy one another in groups. Each person helps the group in his own particular way. One person is full of fun and keeps everyone in a good humor. Another has interesting ideas and is a good planner so that you have wonderful parties, picnics, and school activities. There always is one who listens to all your problems and troubles. Another is a good ambassador and acts as your spokesman on many occasions.

Your group changes as some new friends come in and others move away. Sometimes you have disappointments in friends. Perhaps you outgrow one another. Your interests and your goals may change. At first these disappointments are hard to understand. Soon you learn to accept them as you develop new interests and find friends who fit into them.

Through your experiences in groups, you gain a better understanding of both boys and girls. Your first dates probably are double ones. You find it easier that way. You're friendly with lots of people, but find that you enjoy being with some more than with others. With four of you, no one is on the spot to make conversation. Sometimes self-consciousness creeps in, and you don't feel quite at ease. With a little time and experience, you find yourself at ease dating.

After awhile you find one person you like very well. You want to be with this one. You like to talk together to discuss your ideas, your ambitions, and to talk over your problems. One day you meet someone else you like to be with. You may feel disloyal to your first friend. Don't worry about it. It is natural.

To find the qualities you like in people, you need to know many different ones. As you become acquainted with people, you find various characteristics you admire. You find interests and ideals like your own. You find that you like to be with some of these more than others.

In your dating, you learn to judge people and find the ideals you are seeking. It is a two-way circuit. As you date, you are learning about yourself. You are finding which of your characteristics are pleasing to other people. You find what you like in people and what people like in you. You find that the going isn't always smooth. There are doubts and misunderstandings. Perhaps there are some hurt feelings and a few worries. All of these are part of life. You learn to work them out.

Success in the relationships with your boy and girl friends is important. They are valuable in preparation for future happiness and satisfaction.

The Spiritual You

The emotional you is especially influenced by your spiritual self. Your feelings and behavior are affected by the depth of your faith. It sets the moral standards and values through which you learn to know yourself.

Your ideals and values are not something which have been handed to you. They are the inner you. They help you know what life really means to you.

"Why do you always have to shave on our going out night?"

Two teenagers were discussing what life means to them. One said, "To me life is happiness. Love is the basis of happiness. This means that I love someone and someone loves me. I have the love of my parents, my brother and sisters, my friends, and most of all my God. Life means joy and sadness. It means new experience and new learning as I live from day to day."

The other one expressed his idea that life is existence with a purpose. He said, "Everyone needs to justify his existence. I am here for a reason. God has a plan, and he has put everyone on this earth as part of His plan." This boy feels responsible for his behavior and said it helps him to do the right thing when he knows that it is right.

Gaining Understanding

All your life you have accepted the religious beliefs of your family. You are fortunate if your family has religious convictions. It has made life more meaningful for you.

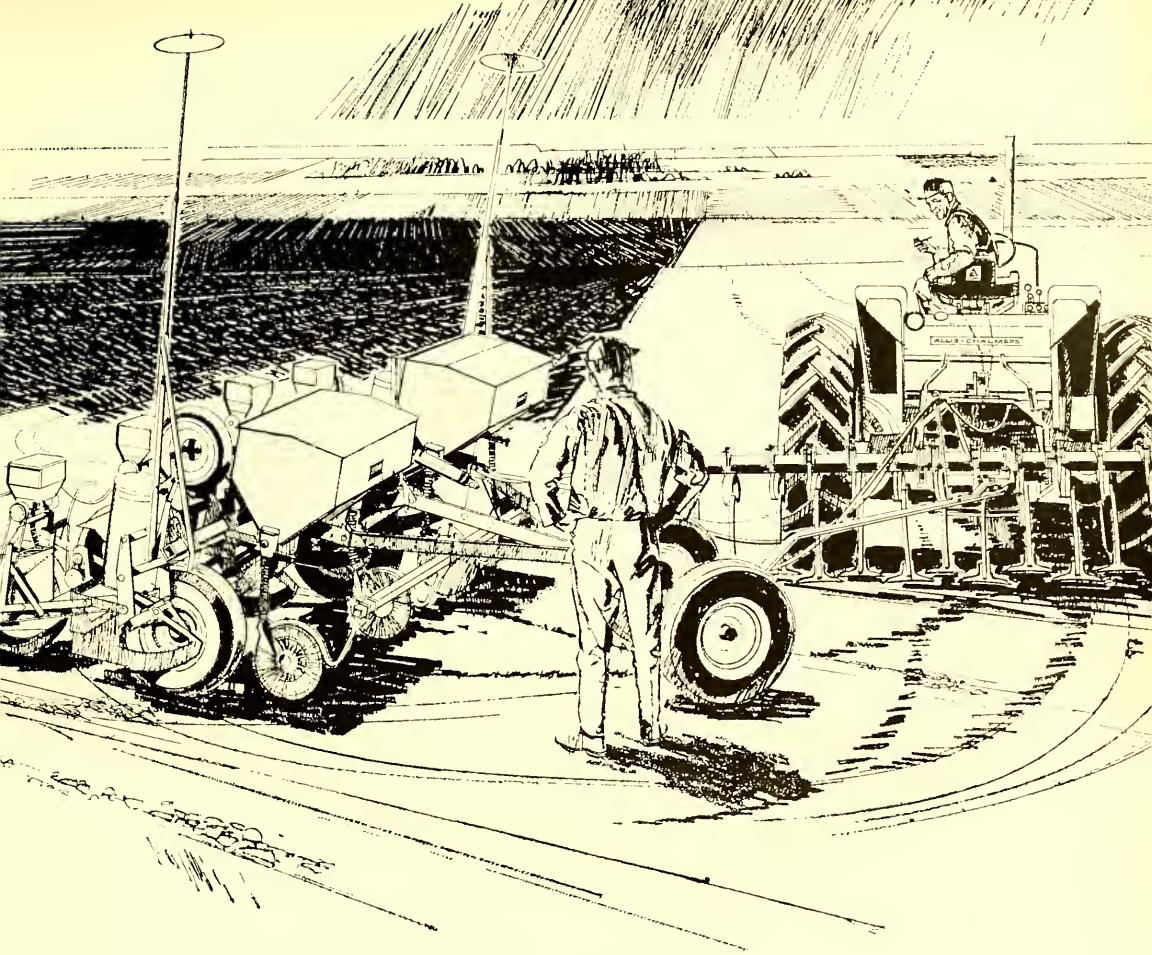
However, since you are spending more time in study, especially of science, you are doing more thinking for yourself. You talk with your friends and some of them challenge your beliefs. You, yourself, may not be quite certain about some of the things you have believed.

Your whole outlook on life is changing. You may find that in this change, you have doubts about some of the ideas of God you had as a child. You may even find yourself wondering if there really is a God. This makes you feel guilty. Don't worry about it, because it's not an unusual feeling. It's quite normal to have those doubts when you begin to see things through your own eyes instead of taking for granted everything that is told to you.

You find it helps to talk these things over with someone. You talk with your friends, because they also are questioning. Talk with your own clergyman and with those of other churches. You think you know how your parents feel, but you may not know. Talk with them about your feelings. They will help you.

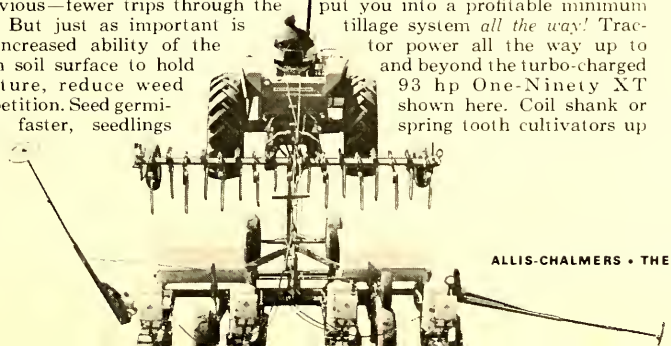
In trying to solve these problems, don't rely on hear-say or on biased opinions. Get facts from reliable sources. Study all sides, and then make your own decisions. As you read and study, you will find there are many ways of worshiping God, and each satisfies the needs of those who follow it.

As you accept God in your way, you will find a closer bond with those you love through a mutual understanding of Him and the life He planned for you.



"Plowed down last fall—now one trip and it's in."
"Our sons won't know what a disk harrow is for!"

Minimum tillage systems farming puts a crop in fast and right, and holds a lot of money-making benefits for you if your land and crop plan are right for it. The time-saving story is obvious—fewer trips through the field. But just as important is the increased ability of the rough soil surface to hold moisture, reduce weed competition. Seed germinates faster, seedlings emerge quicker, tilth is better because compaction is reduced—all adding up to high yields with increased profits. And Allis-Chalmers has the row widths and spacings to put you into a profitable minimum tillage system *all the way!* Tractor power all the way up to and beyond the turbo-charged 93 hp One-Ninety XT shown here. Coil shank or spring tooth cultivators up to 15 feet wide. Planters in narrow-row, wheel-track or conventional. Your Allis-Chalmers dealer knows which minimum tillage plans are best in your area. He's got the big soil preparation line to back up his knowledge, and he has some liberal Allis-Chalmers credit plans available to help you get started in minimum tillage.



ALLIS-CHALMERS

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A Letter from Mother

By Mrs. Margaret Olstad

Dear Son,

I am writing this letter not only to you, but to other mothers' sons who have acquired, or very soon will acquire, that magical passport to would-be manhood, that long dreamed of and much yearned for driver's license.

Little did I dream when you left home yesterday for a gay outing with fellow FFA members that before the night was over you would walk through the valley of the shadow of death, and your father and I would know terror such as we had never before experienced.

That night has been etched in my mind for the rest of my life. As your father and I stood there at the site of your accident in the inky darkness of predawn, a light rain began to fall. There was a large church directly across the road, and except for that grotesque mass of twisted metal and shattered glass that had once been an automobile, everything seemed very peaceful. Yes, God was near.

As I sat by your bedside at the hospital a short time later, my mind went back just 24 hours. How happy you were as you whistled about your chores. You took a little extra time when you fed your pigs to brush "Mathilde," whom you are grooming for a trip to the state fair. Oh, what lofty dreams you have for her! You brought the cows in from the pasture extra early, as you had to take care of your lawn-mowing job, too, before going to the annual "watermelon bust," with a neighboring FFA chapter. You were so happy, and the world was all yours!

Before long, all the chores were done, and you were off for an evening of fun. Just as you went out the door, you bowed in mock formality and said in a French accent you mimic so well, "Don't fret, Mother, I shall return." Funny how little things like that will stick in our minds, isn't it?

You had told us, "Don't wait up for me. It'll probably be after 11:00 before I get back."

I must have slept soundly, for it seemed the telephone rang several times before I awakened enough to answer it. I found the telephone and whispered a barely audible "hello." A man's voice said, "Your son has been in an automobile accident, and we have him here at the hospital. Would you come immediately?" My voice would not obey my thoughts, and he had hung up before I could ask any questions. Instantly, your father was awake, questioning me. With a composure, that belied my turmoil, I told him what little I knew.

Scenes from your 15 years flitted before my eyes as a motion picture. Always curious, you plunged headlong into anything and everything that interested you. When you were old enough for chores about the farm, you worked just as hard as you played, and the years marched one into another. You were growing up—you played football and went swimming with the gang, you got your first .22, you went hunting and fishing with your father, and you daydreamed about the day when you would have a farm of your own.

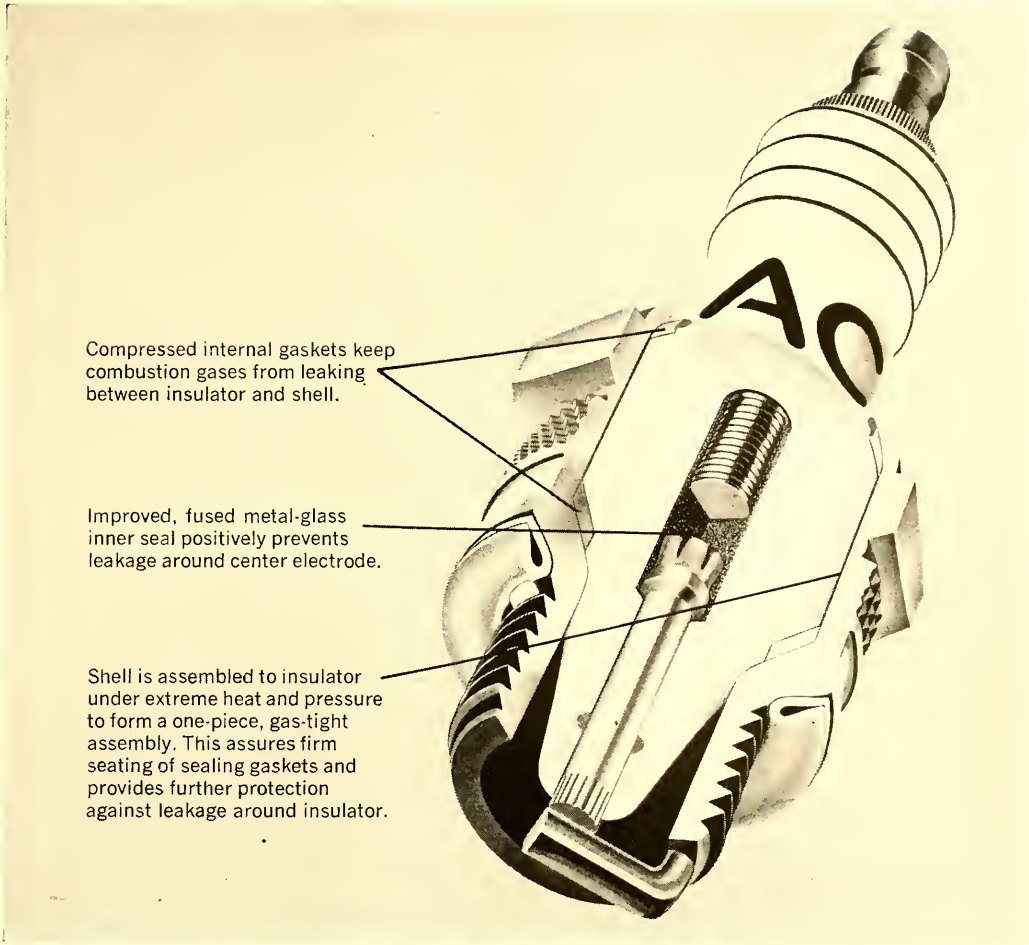
We arrived at the hospital where everything seemed so peaceful and quiet. As I looked at you swathed in bandages, with your mind in that oblivion of unconsciousness, I wanted to cry out, but I didn't. I touched your hand and softly spoke your name. You moaned—somehow you were aware of our presence. The doctor appeared and beckoned us to follow him to an anteroom. There he spoke with great assurance, as he tried to allay our fears. He said you were seriously hurt but would recover. "Oh, thank you, God," I whispered.

You are wondering, I am sure, why I am writing this letter to you since you were not even driving in this particular accident. Son, before very long you, and other young men like you, will be driving. Your life and the lives of many passengers will be in your hands. The cause of the accident in which you were involved, as stated on the police report, was "driving too fast for conditions." When you begin to drive, will you remember the heartbreak that might have been and the wasted years that could have been? You and other young men have so much to live for, but dreams can so easily be wiped out in an instant by those five little words: "Driving too fast for conditions."

This is not meant to be a sermon—simply a letter to a son, all sons, from a mother.

Love,
Mother

Editor's Note: Mrs. Olstad's son Gary has made a total recovery from the accident described in her letter.


Compressed internal gaskets keep combustion gases from leaking between insulator and shell.
Improved, fused metal-glass inner seal positively prevents leakage around center electrode.
Shell is assembled to insulator under extreme heat and pressure to form a one-piece, gas-tight assembly. This assures firm seating of sealing gaskets and provides further protection against leakage around insulator.
AC

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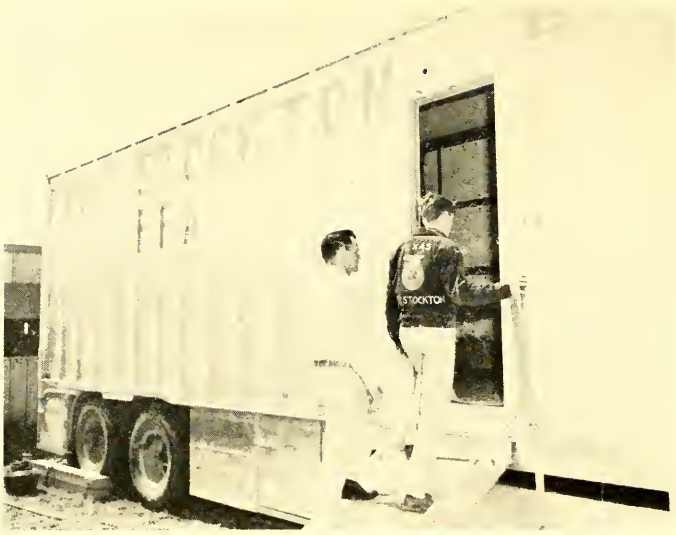

Fort Stockton FFA Advisor, Mr. David White, and FFA member John Cockburn enter the "Hilton on Wheels" which the chapter built to use for traveling.

Fort Stockton FFA Travels in Luxury

WHEN MEMBERS of the Fort Stockton, Texas, FFA Chapter travel to livestock shows, they take with them all the comforts of home and then some. The rolling bunkhouse, which is more luxurious than most mobile homes costing three times as much, was built primarily by advisor White, honorary member E. F. Powell, all vo-ag students, and a host of Fort Stockton FFA supporters.

FFA work started last fall on the $1400 van (40 feet long and 8 feet wide). Total value of the van, not counting the labor involved, is now $4800. The outside of the van looks much like any other, but the modern interior would put many homes to shame. Cabinets and wall paneling throughout are made of beautiful ash. Acoustical ceiling with recessed fluorescent lights accent the beauty of the van. The floor is covered with vinyl tile. Television and radio are provided for entertainment.

The trailer is equipped with a hot water heater, shower, and navy-type folding bunks that sleep 15. The kitchen is equipped with a freezer, refrigerator, and two gas ranges complete with a vent-a-hood.

Beneath the unit, just high enough for road clearance, are compartments for 50 show lambs or 25 breeding sheep.

The "Captain" quarters are located in a separate compartment up front. Equipped to house and sleep four adults, these quarters are even carpeted.

The Fort Stockton FFA Chapter exhibited in major shows at El Paso, Houston, and San Angelo. During these shows, vo-ag teacher White reported thousands of visitors viewed the "Hilton on Wheels."

The "Captain" quarters up front are equipped to house and sleep three adults in addition to FFA Advisor White.

Chapter member Milton Killner adjusts the portable bunks that will sleep 15 FFA members in the traveling bunkhouse.

SWING UP

TO HANDSOME HANDCRAFTED

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Style 182-T-3
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Style 169-X-3
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Style 167-X-3
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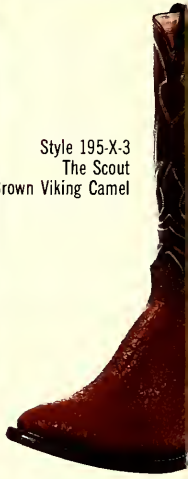
Sparkling Tan Calf

Style 200-T-3
The Tumbleweed
Cinnamon Pigskin on brown Calf with new rolled edge, Algonquin moccasin.

Style 39-J-3
The Wagon Master
Chocolate or black
Water Buffalo
foot and top.

Style 195-X-3
The Scout
Brown Viking Camel



One of the nation's most popular entertainers, Buck Owens is Country-Western music's biggest award winning singer and bandleader. Like all the stars on these pages, Buck chooses Tony Lama above all the rest for style, quality, fit and great good looks.

Style 195-T-3
The Scout
Aniline, Treebark
Kangaroo

Style 83-X-3
The Ace
Natural, full-quill,
genuine Ostrich

LEAD THE S

D WESTERN CELEBRITIES

HAWN DAVIS — 1965 Vorld Saddle Bronc hamp and first riding vent winner to come rom collegiate rodeo anks.

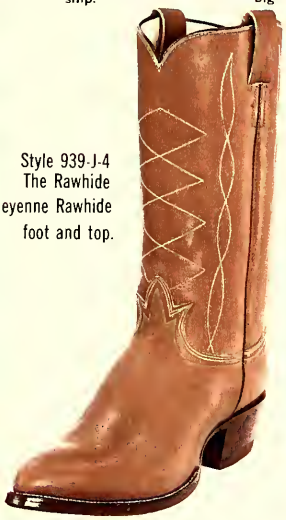
JACK BUSCHBOM — Veteran rodeo competitor and three time winner of the World Bareback Riding Championship.

CHUCK PARKISON — An expert announcer who calls the action at the Houston Astrodome rodeo and many other big ones.

WILBUR PLAUGHER — Rodeo cowboy and rodeo clown who is one of the sport's best known and best-liked personalities.

DON McLAUGHLIN — One of rodeo's most skillful ropers, proven by his seven titles in steer and calf roping events.

DEAN OLIVER—All time great calf-roper and winner in 1965 of his third World Champion All-Around Cowboy title

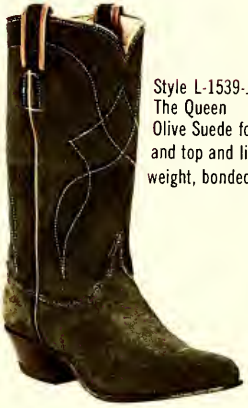


Style 939-J-4
The Rawhide
Cheyenne Rawhide
foot and top.

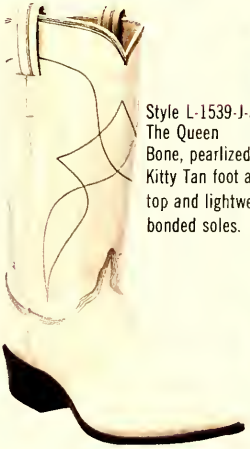
Style 58-X-3
The Stockman
Aniline,
Benedictine Kangaroo

Style 180-T-2
The Roundup
Chocolate Caribou in
rolled edge, Algonquin
moccasin styling.

Style 439-CR-3
The Branding Iron
Premium black Calf



Style L-1539-J-4
The Queen
Olive Suede foot
and top and light
weight, bonded soles.



Style L-1539-J-3
The Queen
Bone, pearlized
Kitty Tan foot and
top and lightweight,
bonded soles.

Style L-020-J-3
The Pecos for Ladies
Black luster Kitty Tan
foot and top with
miniature genuine
Alligator wing tip and
lightweight bonded
soles.

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Camouflage pays off; where is the hunter in the photo?

BOWHUNTING FOR DEER

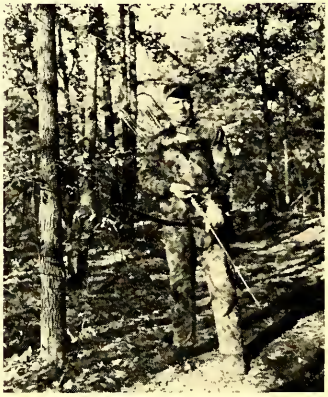
By Russell Tinsley

IF YOU CONSIDER yourself an above-average deer hunter (and don't we all?), you are ready for the ultimate challenge . . . bowhunting the crafty whitetail and mule deer.

Buy yourself a bow and some arrows and practice with it, one of the most primitive of all weapons. When you have the fundamentals mastered, take your weapon and head afield to accept this new challenge. But I must caution you: prepare to have one slightly inflated ego knocked cockeyed. The person who says killing a deer with bow and arrow is easy has never tried it.

With a high-powered rifle, the hunter can kill almost any deer he sees, even one more than 200 yards away. But a bow-and-arrow hunter must be within 35 yards of his quarry to stand a chance of hitting. He must make his move before the animal realizes he is nearby, and the animal should be practically motionless so he can drive an arrow into vital organs. It is far more difficult to master the long bow than it is a rifle, and there is more margin for error. Most bowhunters sight instinctively, although bow sights are gaining in popularity.

But the bowhunter does have one thing in his favor. Most states have a special bowhunting season prior to the regular season. If the bowhunter doesn't get a deer, he can take his trusty rifle and go hunting again during the regular season.

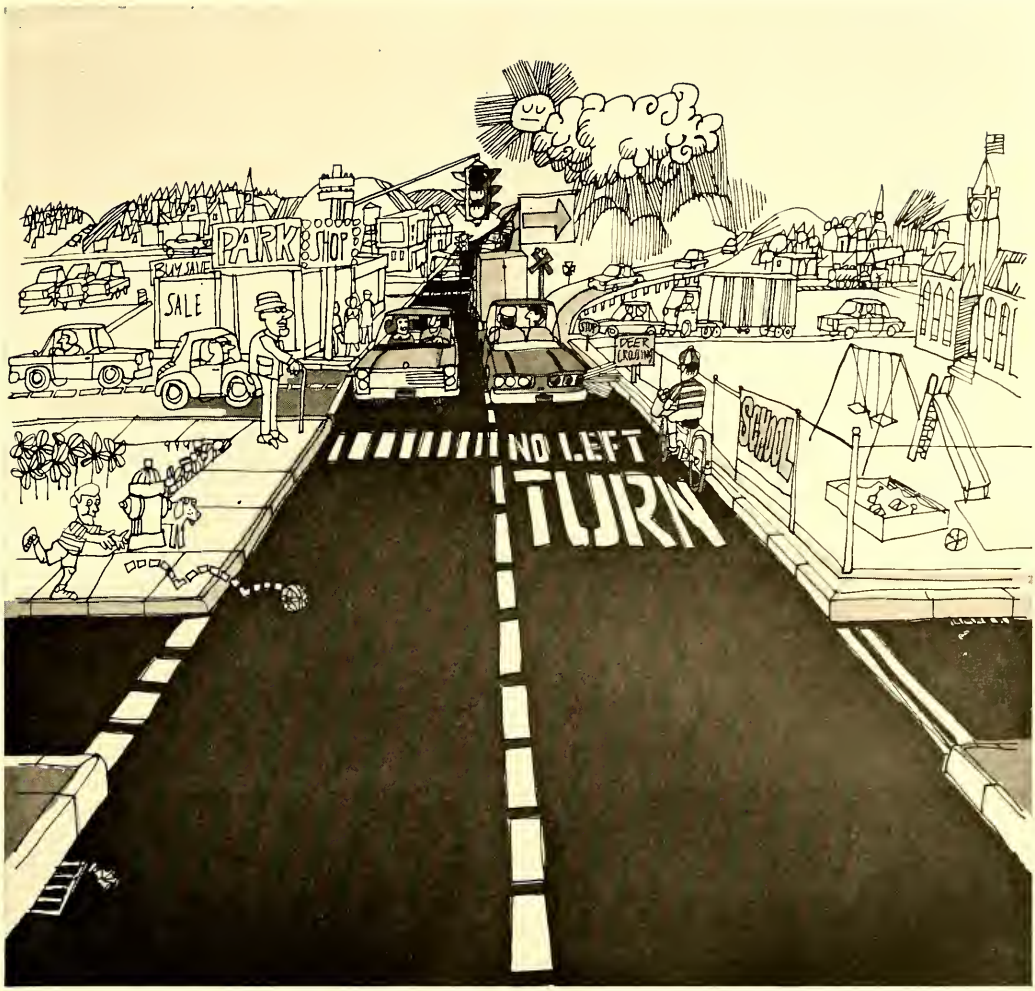


Camouflage clothing makes the bowhunter appear to be part of the woods.

You must try bowhunting to com-

(Continued on Page 54)

Good driving tips for teens



Get "the big picture" when you drive!

Expert driving calls for a "wide-screen" view of the road. Getting the "Big Picture" keeps you alert to action at the front, sides and rear.

Keep your vision aimed wide and well ahead on the road and use big eye sweeps to take in the whole scene out front and to the sides. Watch for "blind" intersections and side roads. Don't tunnel your vision to the narrow center stripe or stare at any one point, even for a few seconds.

Getting the "Big Picture" can help you spot possible traffic hazards in time to avoid them. This is the advice of Harold Smith, originator of the "Smith System of No-Accident Driving". Practice it. You'll become a better, safer driver.

Ford

FOR A SAFER AMERICAN ROAD

Bowhunting for Deer

(Continued from Page 52)

prehend how frustrating it can be—or how much fun! Numerous times I've had deer within 35 yards and thought I had a reasonable chance, only to have something go wrong. One time my arrow struck a small limb, creating enough obstruction to deflect the arrow off target. Another time an arrow stuck in a small sapling that was between an unalarmed mule deer and me. A mule deer isn't as nervous as the jittery whitetail. One might see you and still stand long enough for you to get off a shot, but if a whitetail is frightened, it will spook at the motion of you releasing an arrow. I've actually had whitetails see arrows coming and jump out of the way. Try to work for shots when the deer is looking in another direction or has its head behind an obstruction. The idea is to avoid detection.

Bow-and-arrow hunting is quite safe. This is one of its appeals. Since a bowhunter must be close to his quarry, there is no hazard of him taking a hap-chance shot at something that just resembles a deer. He is positive of his target. I use camouflage liberally, even to a cloth sheath that fits snugly over the bow and a mesh headnet which covers the face.

The motionless, camouflaged hunter, waiting patiently on a concealed stand, has less chance of being seen, and he is in a better position to have the deer approach close to him, rather than vice versa. Where it is legal, the best stand is in the low fork of a tree overlooking a traveled game trail, or near a grainfield, a waterhole, or a natural mineral lick. In a tree the hunter can see better, he is less likely to be seen (animals rarely look up), and his telltale scent is less of a threat. A whiff of human odor is one danger signal no deer ignores. If you are sitting on a ground-level stand, always have the prevailing breeze, no matter how light, blowing into your face. Liberally sprinkle your clothing and nearby trees with deer scent, available at any sporting goods store. This strong-smelling liquid helps mask human odors.

Get someone experienced in the sport to aid you in purchasing the necessary equipment. Few sporting goods dealers have the basic knowledge required. In bowhunting, it is imperative that you have matched equipment suited to you physically. The bow should be at least 45 pounds pull (the amount of pull in pounds required to draw an arrow full length), although it helps to learn with a lighter one, about 30 pounds. A common mistake of the beginner is trying to learn with a heavy bow. Muscles are not accustomed to the constant unnatural strain, and accuracy is difficult to attain.

Arrows should be of a weight matched to the bow, and each arrow should be of identical weight to assure the same accuracy with each shot. The person who becomes proficient with bow and arrow must practice regularly and diligently. It is not an easy weapon to master.

The arrows (either fiberglass or aluminum is best) should be tipped with sharp broadhead points for hunting. Unlike a bullet, the arrow kills by hemorrhage rather than shock, and it must be razor sharp. Dull arrows cause loss of more crippled deer than any other single factor. The arrows should be sharpened every time you go hunting.

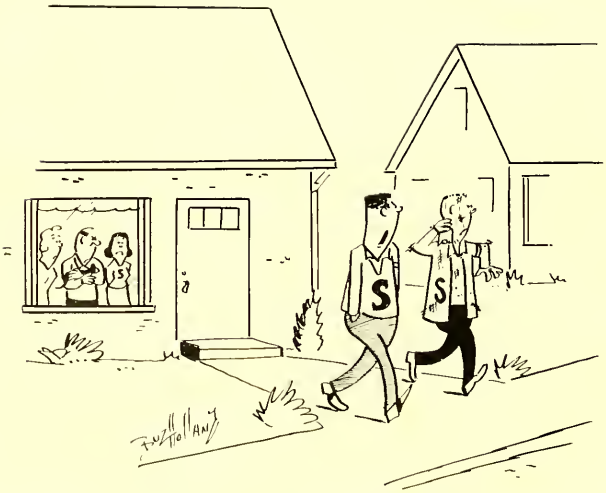
Most hunters prefer handy quivers which snap on bows for carrying their arrows; other quivers, such as those carried on the back or belt, tend to hang in underbrush and make noises which alarm deer.

It isn't imperative that you be an expert marksman with a bow to go hunting. Personally, I feel it is much more important to be a skilled hunter. Anyone with the basic fundamentals and a few hours practice can pinpoint an arrow within a four-inch circle at 35 yards, and this is all you need.

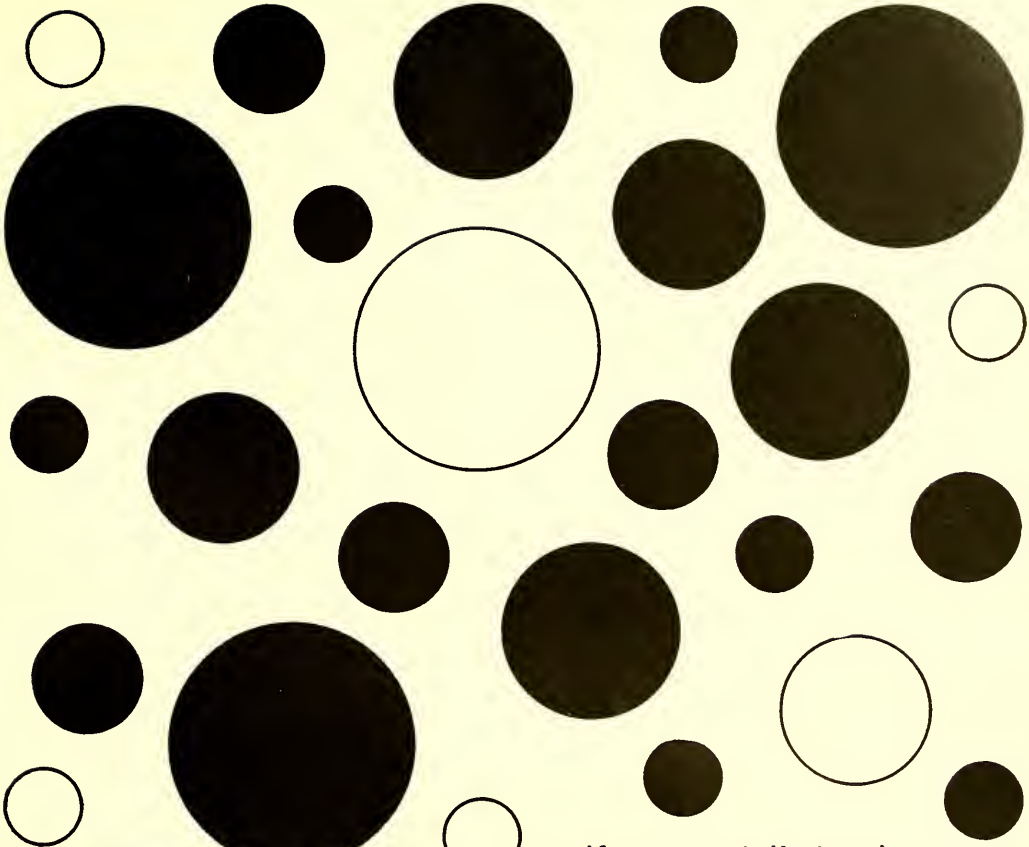
Yet, the bow and arrow is no toy. Modern bows have fiberglass-laminated wood cores that are rugged and strong. Such a bow will drive an arrow with amazing accuracy and force. A 45-pound bow can spear a broadhead arrow through several inch-thick pine boards. Any resemblance between modern equipment and that made famous by the Indians is pure coincidence.

To give some inkling of its potential, the bow and arrow accounted for the largest whitetail deer killed in modern times. Mel Johnson, while hunting in 1964 just outside Peoria, Illinois, killed a huge typical buck that scored 204 4/8 points in the Boone and Crockett Club rating system. (This club records big-game kills.) This surpassed a Minnesota buck killed in 1918 which scored 202 points. In 1962 Del Austin bagged a Nebraska buck that scored 277 3/8 points for a non-typical (freak) set of antlers. It was the best non-typical buck recorded since 1905. A Texas buck that was killed in 1892 scored 286 points.

These record kills are the best endorsement I know of for bowhunting deer. In a way, bowhunting has put the emphasis back on the hunt rather than the kill. That is why it is booming in popularity.



"I figured her dad would throw us out the minute you kicked his cat!"



If you can tell at a glance how many different size dots* there are, Air Force radar may be the job for you.

"Visual acuity"—the ability to see things quickly and accurately—is an essential natural skill for a radarman. And while the phrase may sound a bit imposing, the skill is one that you may have, perhaps without knowing it!

You see, to be successful in radar (and in many other Air Force jobs) all you need is a basic ability that can be developed by Air Force technical training.

For example, if you're good at fooling around with machines, there may be a job for you as a missile or aircraft mechanic. Or if you're a whiz with charts and graphs, you may find a career as a weather specialist.

Find out how you can put your talents to the best use, by visiting an Air Force recruiter. Be part of America's Aerospace Team!

UNITED STATES AIR FORCE

*THERE ARE FIVE DIFFERENT SIZE DOTS. SIZE DIFFERENTIATION IS ONE THING AN AIRMAN HAS TO KNOW WHEN HE'S MONITORING A RADAR SCREEN.

The Longhorn Lives On

Like the buffalo, the Longhorn has left an enduring trail across the historical pages of the old West.

By John Krill

A FEW YEARS AGO the Texas Longhorn was nearer to total extinction than his mighty relative, the American buffalo. Like the buffalo, the Longhorn had left its imperishable trail across the historical pages of the West. And like the buffalo, the Longhorn fought desperately to survive this modern age. For him there was no "home on the range." Like his wild cousin, the Longhorn no longer fitted into the scheme of things.

In 1915 the government made its first move to save the fast-dwindling numbers. Small herds of the fiercely self-sufficient cattle were established on the Wichita Mountain Wildlife Refuge located in Cache, Oklahoma. Several years later, another government refuge was offered. Fort Niobrara in Valentine, Nebraska, joined in the battle to save the Longhorn for posterity. So far as was known, these two sanctuaries were the last stand of the famed, but unwanted breed.

But the plight of the vanishing Longhorn did not escape the attention of a number of prominent Texas, Oklahoma, and other U.S. cattlemen. They got together and organized what is now The Texas Longhorn Breeders Association of America. The organization has succeeded in uncovering unknown lovers of the breed who had kept small herds on their ranches.

The purpose of the organization is to give recognition to the Longhorn and its important role in American history. Members are dedicated to breeding practices that will keep the breed pure. Interest in preserving the Longhorn is shown by the fact that members are scattered across 28 states, among which the eastern states of Pennsylvania and Massachusetts are included.

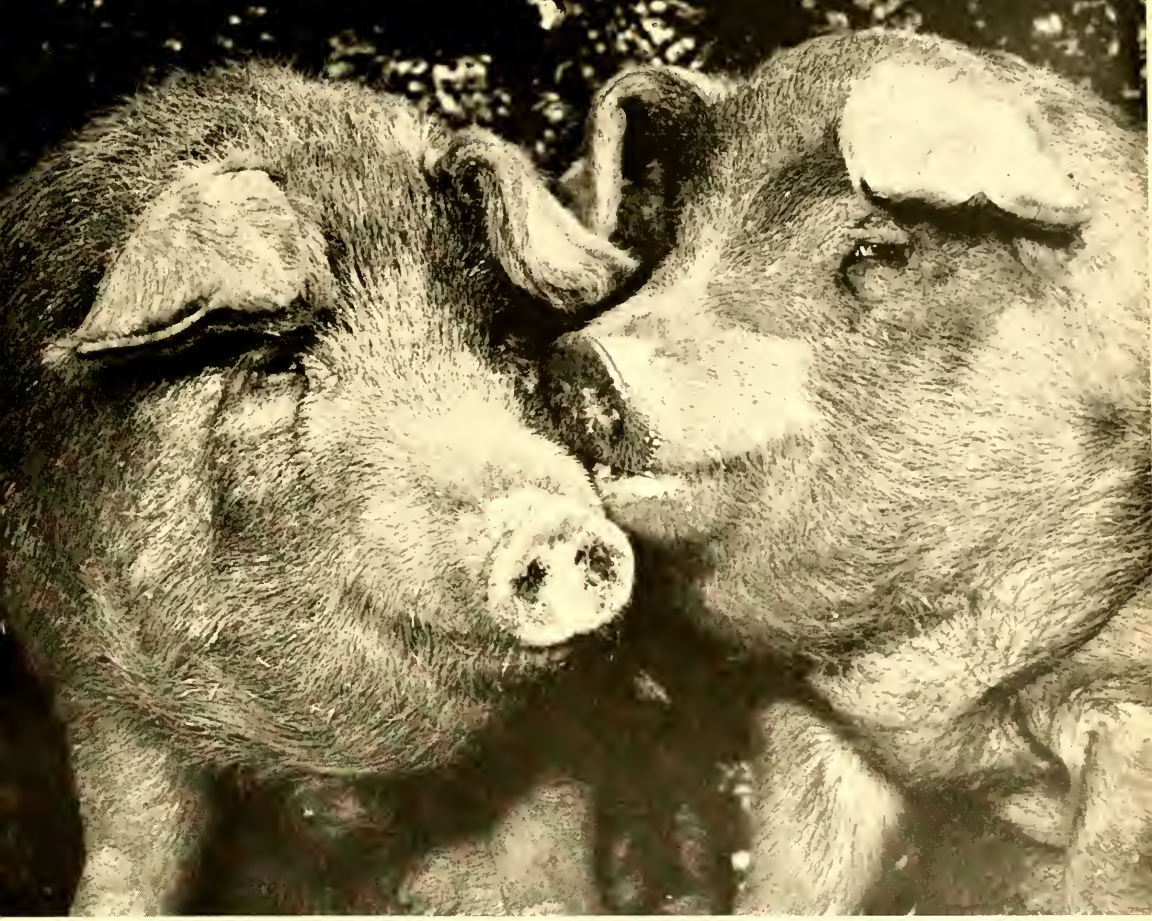
Texas boasts many herds. One located at the Charles Schreiner, III ranch, Mountain Home, has over 300 outstanding animals. Probably the largest herd is the proud possession of Fayette Yates of Alpine, who owns some 2,000 head. Outside of Texas, the largest known herd is 600 head owned by the Harry Pons ranch of Burns, Oregon. Inquiries regarding Longhorns have been received from Germany and South America showing that interest is growing outside the U.S.

Today, except in very rare cases, the Longhorn no longer sports the long and lanky look. Cattlemen have provided much better feed than was once available, and the Longhorn is waxing fat. Still carrying the massive horns with their awesome spread, the plumper version may tip the scales at one ton. Today's Longhorn is as independent and self-sufficient as his ancestors. The mighty span of sharp horns backed by heavy muscle and trampling hooves permitted the Longhorn to defy the hungry bear, the ravenous wolf, and the cunning cougar.

Bulls unwilling to fight are an extreme rarity among Longhorns. In early days savage fights between grizzly bears and Longhorns were frequently staged in pits from which the contestants could not escape. The Longhorn never hesitated to carry the fight to his enemy. Lions were also imported and pitted against Longhorn bulls. Again the mighty ruminant of the plains was not found wanting in courage. It soon became apparent to promoters that lions killed by the bulls were far too costly to warrant more imports.

There is good reason for the unyielding courage of the Longhorn.

(Continued on Page 62)



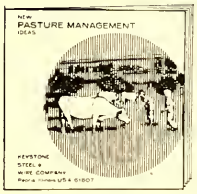
"Midriff bulge, honey?...It's easy on pasture"

"Lingering in the ladino sure beats that old dry-lot. Why with good pasture, two can live almost as cheaply as one. None of those high priced meals, like soybeans.

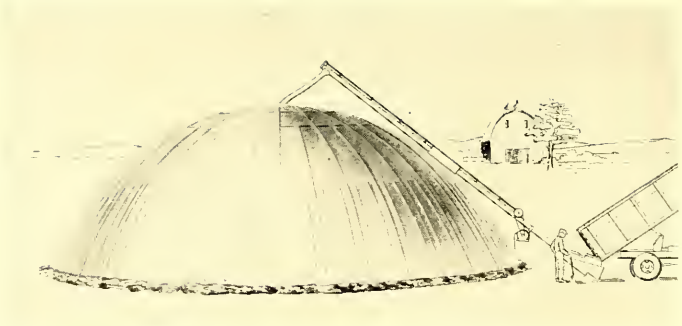
Come along, darling. Time to get your vitamins. It's always fresh and clean out here . . . and we can get away from the crowd. Never mind that bulge, honey. The old man likes you that way.

Know what gave him the idea of improving this pasture for us, the RED BRAND® way? Money, my dear, money! He's growing $4 where $1 grew before. Saves on the feed bill, besides giving us good clean living.

You've got to admit it, we're rolling in clover now . . . and the pasture's always greener on *this* side now."



Want to know how "the old man" is making more money without adding more acres? The secret's contained in a new booklet, *"New Pasture Management Ideas."* It's full of tips on how to turn a profit on idle acres and neglected acres with Galvannealed® RED BRAND fence. Suggestions for hogs, beef and dairy cattle and sheep. Send for your free copy today. Address: Keystone Steel & Wire Company, Peoria, Illinois 61607.



A new dome-shaped storage and conditioning unit that will keep shelled corn.

A Cool Operation for Corn Storage

By John M. Pitzer

DEHYDRO-FRIGIDATION—a big word to describe a new technique that may solve some of the wet-corn storage problems of the past.

The all-new system makes use of natural cold air drying and thus eliminates chance for overheating and possible damage in quality that might occur in kiln type drying.

During the 1965 harvest season, the University of Illinois tested the all aluminum storage unit, or dome, which is manufactured by the Frigidome Corporation of Peoria, Illinois. Agriculture engineers are also interested in the possibilities for using dehydro-frigidation for peanuts, milo, and other crops.

The dome is an insulated modular structure that allows the corn to lie near its natural angle of repose. It takes about five days to erect the dome and needs only a flat surface—no cement floor—and about nine inches of crushed rock for a base. Air ducts in the floor allow for proper air movement. Corn is loaded into the structure from the top.

Electrically operated heat pumps are used to cool the corn. Hot corn brought directly into the dome can be cooled overnight to temperatures as low as 35 degrees.

The dome offers a number of advantages to the corn producer. Since the unit is on the farm, corn can come straight from the combine to the dome. This lets you keep the combine going, as well as eliminates the problems of waiting in line at the elevator.

Even more advantageous is the fact that you can decide the time, place, and method you want to use in marketing corn. No need to take those low prices at harvest time.

It also will permit you to hold wet corn in the dome until you have time and labor to dry it with regular methods; and keep wet corn to feed livestock and still sell part of it later. Other advantages include savings in handling, labor time, and maintenance costs.

The dome is manufactured in two sizes—25,000 and 50,000 bushels. Inload capacity is about 5,000 and 10,000 bushels respectively.

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Here, then, is the seat from which you can rule your acres. It's the mighty International® 4100 tractor, and it represents over 9½ tons of earning power.

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It has 4-wheel drive and 4-wheel steer. Turns in a 13½-foot radius to speed headland swing-around, gets out of tight spots.

The 4100 looks like a huge brute, and it is. But it handles more easily than many a small tractor, steers with a fingertip.

And in the optional spacious cab, you'll find real comfort, a commanding view, and the handiest controls you could ask.

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INTERNATIONAL HARVESTER COMPANY

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Last year four of these Tifton, Georgia, brothers earned one of the FFA degrees. Left to right in order of degree rank are Grady, Melvin, Danny, Jimmy, and Jack.

The FFA Family Style

By Eleanor Gilmer

NO DOUBT IF the FFA had five degrees instead of four, there would have been a Thompson from Tifton, Georgia, to receive it last year. Out of this family of five Future Farmers, each of them received one of the degrees in FFA last year, and the other was approved for the State Farmer Degree.

Twenty-three-year-old Grady Thompson, Jr. was one of Georgia's 18 American Farmers. Melvin, 19, received the State Farmer Degree; Jimmy, 17, earned the Junior Farmer Degree, and fourteen-year-old Jack was selected as the Star Green Hand of his chapter. Danny, 18, has already been approved for the Georgia Planter Degree (State Farmer).

These five sons of Mr. and Mrs. Grady Thompson, Sr., have all made impressive records for themselves in FFA.

While in high school, Grady served as vice president of the Tift County Chapter. He was selected as Star Chapter Farmer and was an honor graduate in agriculture.

Melvin, currently a student at Abraham Baldwin Agricultural College, was president of the FFA his senior year in high school. He, too, was Star Chapter Farmer and an honor graduate.

Danny is president-elect of the Tifton Chapter and recently represented his chapter as official delegate to the state FFA convention. He has also made a name for himself in the livestock show ring. Last year, he exhibited the Grand Champion steer in the very competitive area steer show, and for three years he has earned the first place showmanship award.

Jimmy is the new secretary of the FFA. He served as parliamentarian last year. Even though Jack will only be a second year FFA'er in September, he has already been recognized for his leadership ability and was elected sentinel of the chapter for next year.

The Thompson brothers live with their parents; brothers Rocky, 13, and Clyde, 6; and sisters Martha, 20, and Ginger, 11, on a 1500-acre farm in Tift County, located in one of Georgia's richest farming areas.

Five hundred of these acres are in cultivation, and the rest is in forest land. Corn, tobacco, cotton, peanuts, and livestock are the major enterprises of the Thompson farm. Each of the boys has a share of the operation, and each has his own supervised practice program for vocational agriculture.

Grady does not live at home with the rest of the family, but he, his wife Sara, and year-old Grady III, live just a mile or two away. Recently, he lightened his farming program so that he can work as a salesman for a local fertilizer-insecticide dealer.

Advisors of the Tift County Chapter at Tifton are Grady Peele, C. H. Majeski, and L. C. Morris.

An FFA mailbox is a natural for this five Future Farmer Thompson family.

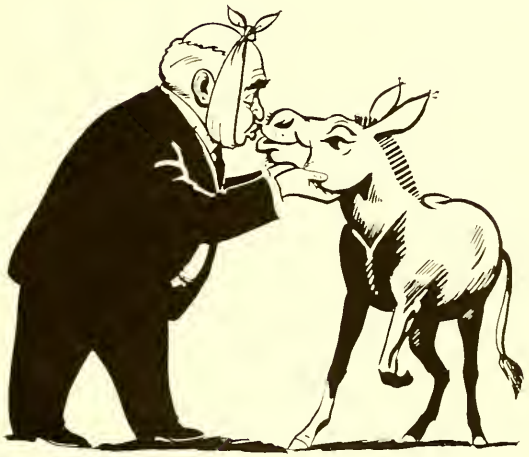
This is a familiar scene around the Thompson farm, agriculture teacher, Mr. Peele (right) talks farm business with the Future Farmers and their father.

How Is Your Dental IQ?

How do you cure a toothache? Do you kiss a donkey? Hang parsley about your neck? Run around a church three times while not thinking of a fox? Or perhaps you cut your gums with an iron nail and then drive the nail into a wooden beam!

Such superstitions of the past sound a bit silly in this twentieth century. But are you so sure you don't have some equally false concepts about dental health?

In order to help you test your Dental IQ, the American Dental Association has prepared this short quiz. Allowing ten points for each correct answer, a score of 80 indicates you're seeing your dentist regularly; 50-70 you missed your last appointment; 40 or less, you'd better call him right now.



QUESTIONS

1. All cavities in baby teeth need not be filled because the teeth are replaced later.

2. Chewing gum helps keep the teeth clean and fights dental decay.

3. Drinking lots of milk and eating foods with plenty of vitamins and minerals will prevent tooth decay.

4. You can inherit "soft teeth"—teeth which are more likely to decay.

5. Teeth should be brushed immediately on arising and before going to bed.

6. Proper toothbrushing completely removes the deposits of tartar on the teeth.

7. If a toothache stops, it usually means the tooth is beginning to repair itself.

8. Chances are you will eventually end up with a set of dentures.

ANSWERS

1. It is just as important to take care of baby teeth as of permanent teeth. First teeth are needed for chewing, speech, and appearance. Additionally, they maintain the shape of the jaws so that permanent teeth will erupt in proper position. Also, remember that the "six-year" molars are not baby teeth, but permanent ones.

2. Most chewing gum contains sugar (approximately one-half teaspoon per stick), and is not recommended.

3. Milk is an excellent food but will not prevent tooth decay, nor will large amounts of vitamins. Calcium and other vitamins and minerals are needed while teeth are forming; but all teeth are formed and calcified by about age 13. After this, diet has little effect on teeth, except that excess sugar plays a role in development of decay. And once decay starts, no amount of milk or vitamins will stop its progress.

4. Inherited factors do play a role in dental disease, but poor dental health habits play an even bigger role.

5. Brushing should be done immediately after eating. Bacteria in the mouth quickly turns fermentable carbohydrates, especially sugar, to acid, which attacks tooth enamel and eventually results in decay.

6. Tartar deposits are not completely removed by the toothbrush. Only a dentist or dental hygienist, using special instruments, can do it. Removal of tartar is essential for the good health of gums and teeth-supporting bone.

7. Tooth enamel cannot repair itself. When a tooth stops aching it may mean that the pulp is affected and the pulp or "nerve" is dead—an indication of real trouble.

8. True, but it doesn't have to be. The odds will be in your favor if you follow three basic rules: cut down on sweets; brush teeth immediately after eating; have regular dental checkups. Drinking fluoridated water is also of great benefit. Teeth are meant to last a lifetime.

Sew Leather, Tough Materials Easily — Heavy duty stitcher makes it easy to sew leather, canvas, plastic, nylon, etc. Complete with 3 needles, 10 yards of strong waxed Nylon thread. $1.98 ppd.
Van's Post
1534 Osborn Burlington, Iowa

The Longhorn Lives On

(Continued from Page 56)

courage which only death can quench. Even today the Longhorn bulls have an unmistakable resemblance to the famed fighting bulls of the Spanish arenas. In the 1700's Spanish conquistadores and padres brought Longhorn cattle to Mexico, and from there into Texas. Spanish conquerors built up Longhorn herds to insure a stable meat supply. Using the cattle as an incentive, the Spaniards tried to change the Indians into pastoral peoples.

The white conquerors, however, practiced many inhumanities against the Indians. The Indians soon retaliated. Missions were raided and Longhorn cattle driven off by the vengeful Indian. One by one missions were abandoned. Remaining cattle were turned loose to shift for themselves as the Spaniards left for more hospitable areas.

It was during the fifty- to sixty-year span that Spanish cattle, loose and lacking contact with man, developed into the Longhorns of cowboy legend. Left to themselves, the cattle became as wild as any untamed creature of nature. Beset by dangerous beasts of prey such as the lobo, grizzly, and cougar, the wild cattle developed mighty horns with which to combat these natural enemies. The horns served the dual purpose of allowing the cattle to cut through the thickets and tangles of the Texas brush country.

It is estimated that more than ten million Texas Longhorns grazed the plains before the Civil War and the historically-famed trail drives. Rounding up a herd of Longhorns for branding or a drive was no simple undertaking. The Longhorns would find sanctuary in thickets impenetrable by a horse and rider. Dogs were often used to drive them out of their havens. Herds were quick to stampede, and countless cowboys paid with life or limb when caught in such a rampaging sea of tossing horns and chopping hooves. The Longhorns were driven from Texas into territories that had no cattle, there to become established until gentler and meatier beef breeds pushed them into obscurity.

At a recent auction held by the Texas Longhorn Association, breeders spent $45,000 to purchase animals for their herds. A single bull brought $1,850. Not bad for an "extinct" breed that nobody wants.

The real thing...
LEVI'S®
AMERICA'S FINEST JEANS • Since 1850
You can't fool the working cowboy! He knows there's only one brand of blue jeans proved on the West's toughest jobs! It's LEVI'S—cut from the world's heaviest all-cotton denim—in the slim, trim fit that means solid comfort, in the saddle and out!
On the back pocket, look for the Red Tab and this distinctive stitched design.
® THE NAME LEVI'S IS REGISTERED IN THE U. S. PAT. OFF. AND DENOTES GARMENTS MADE ONLY BY LEVI STRAUSS & CO., 98 BATTERY ST., SAN FRANCISCO 6

"Now remember, just block and tackle. Don't use the goal posts on anybody."

I used to think you had to baby a 22 automatic when the weather got bad and the going got rough.

Then I met the two-fisted 22's from Remington.

I was slogging through a muskrat swamp on a day fit only for ducks when I came across a youngster toting a rugged little 22 automatic.

I asked him what make of gun it was that could take rain, mud and rough treatment. His answer: "A Remington, mister. A Nylon 66!"

That was my introduction to the way Remington builds 22 automatics. Later my Remington dealer filled me in on the details:

The Nylon 66. (Shown above.) Standard gear for trappers from Hudson Bay to the Everglades. And no wonder! The nylon stock is so strong it's guaranteed never to warp, crack, chip, fade or peel. Nylon "greaseless bearings" make the action virtually jamproof. Barrel is three-point-bedded for tack-driving accuracy. From $49.95*.

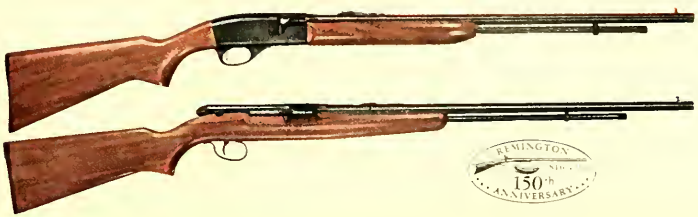
The Model 552. (Shown below, top.) The tough, trouble-free automatic action handles any combination of shorts, longs or long rifles as fast as you can fire 'em. With a trigger pull that's crisp and clean. Choose man-sized standard wooden stocked Model 552 or new De Luxe 552 BDL that has everything! (Including custom checkering, Du Pont RK-W "bowling-pin" finish and real big-game rifle sights.) From $57.95*.

The Model 550. (Shown below, bottom.) Two generations of happy shooters can testify to the rapid fire, ruggedness and reliability of this classic wooden-stocked automatic. A real do-everything gun. Fine for hunting, plinking and family fun. Handles all three lengths of 22's interchangeably. Only $54.95*.

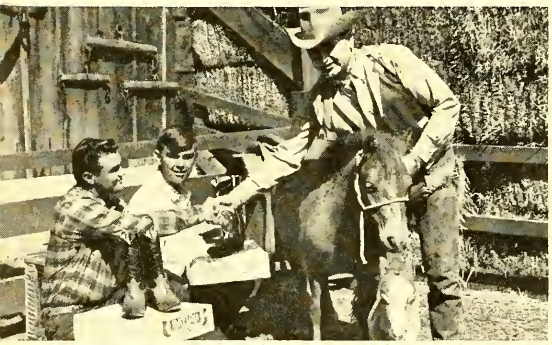
Interested? See your Remington dealer or send for the free 1966 Remington catalog. (Address below.)

Remington Arms Company, Inc., Bridgeport, Conn. 06602. In Canada: Remington Arms of Canada Limited. *Fair trade retail prices in states having Fair Trade laws. Prices subject to change without notice.

Remington DU PONT



This FFA log sawing team works against time in competition at one of the Forestry Field Days held in Florida. Events emphasized forestry skills.



Future Farmers Bob Kirk and Mel Fiskum each received a pair of western-style boots for their recent win in the livestock section of the Junior National Livestock Show.

Olympia, Washington, Chapter joined forces with a school printing class to produce copies of the FFA emblem that can be used to identify FFA exhibits at livestock shows.

Colorado's FFA Farm Safety Award chapter winner, Eaton, uses the ag II class to present a safety demonstration emphasizing the importance of the SMV emblem.

Dan Rogers of S. C., Steve Washington of Miss., and Mike Calaway of Ga. eye a travel poster of Chile where they will spend two weeks as a prize from a nitrate company.

PHOTO Roundup

It pays to buy the cheapest feed you can find

(or does it?)

Lots of feeds sell for less per ton than MoorMan's.

So why doesn't it make sense to buy them? After all, a cheap feed offers some advantages:

• A low-quality supplement won't balance grain very well—so it'll use up a stockman's supply faster. He won't have to worry about crib and bin room for the next crop

• Cheap supplements can mean less work, too—smaller litters, less milk, fewer eggs. And there's more time to study the market before slow-growing hogs are ready to ship.

• When a stockman buys feed loaded with grain by-products or fillers, he gets to handle more bags—to help build up his back muscles.

• Best of all, a low-quality supplement can mean a low profit per head and less income tax to pay.

We're kidding, of course. We know that *only the rich can afford a cheap feed*—that a lower price per ton for purchased feed won't offset poorer feeding results and higher *total* feed cost.

That's why MoorMan's emphasizes on-farm feed-building with economical, locally grown feeds—plus the small amount of highly concentrated Mintrate® or Premix-trate® needed to balance grain and roughage efficiently. And many MoorMan Products can be self-fed by those who'd rather not grind and mix.

It takes high quality to get low-cost results, too—so we are forever checking and double-checking the proteins, minerals, vitamins and other hard-working ingredients that go into MoorMan's.

And MoorMan Research never skimps on testing and retesting product performance—on our own Research Farms and on the farms and ranches of cooperating livestock raisers.

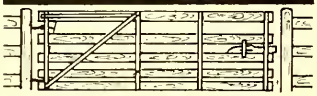
Sure, many other feeds cost less per ton. But for low-cost *results*, it's hard to beat MoorMan's.

MoorMan's®

Moorman Mfg. Co., Quincy, Illinois

A ROYAL welcome to the FFA!
AMERICAN ROYAL
Livestock and Horse Show
OCT. 14-22
(Special FFA matinee, Friday, Oct. 14)
American Rayol Dairy Show, Oct. 8-11
American Royal Bldg., Kansas City, Mo.

WRITE FOR . . . SPECIAL FUND-RAISING PLAN FOR YOUR OWN FFA CLUB!
EARN MONEY MAKE FARM GATES Quickly & simply with
RENTSCHLER FARM GATE KITS



Simple design lets you build it yourself! Easily, quickly assembled. Fits 6' to 16' OPENING. Earn money! Write today for our Fund-Raising Plan!
Also DANUSER EARTH ANCHOR
No driving or digging. Withstands over 2,000 lbs. pull. Easily removed.
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PROFITS! PROFITS!

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NO CASH INVESTMENT.

Let Dixie Maid make your next fund-raising campaign the outstanding success of the year!

The Dixie Maid line sells everywhere like wild-fire because these unusual Christmas candies are packed in attractive re-usable apothecary jars, decorative canisters and giant Christmas canes. They are always filled to the brim with a delicious assortment of goodies.

If you are looking for a quick, easy way to raise money for your group or organization send for our complete sales plan and price list today. Be ready for the big Christmas holiday gift buying time and big, big profits with this nationally known and accepted line of best-seller candies.

Write today:
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National President Howard Williams talks with former FFA'ers Congressman Don Fuqua of Florida, left, and Senator Fred Harris of Oklahoma, right, at the first "Capitol Hill" FFA Chapter meeting.

FFA on Capitol Hill

A NEW FFA CHAPTER has been organized in Washington, D. C. The chapter members are all distinguished Americans and have excelled in leadership activities. The members come from all parts of the United States. It is called the "Capitol Hill" Chapter.

There are 53 members in the new chapter. Twenty-four of them are members of the United States Senate. Twenty-nine of the new members are in the House of Representatives. All 53 members were either former Future Farmers or hold honorary degrees. Seven are former members; two have Honorary American Farmer Degrees; forty-two have Honorary State Farmer Degrees; and two have Honorary Chapter Farmer Degrees.

Senator Fred Harris of Oklahoma and Congressman Don Fuqua of Florida called the first meeting of the chapter. They were both former active members of the FFA.

At the first chapter meeting, national FFA officers brought a word of welcome to this new chapter from the national organization.

FFA president greets John W. McCormack, Speaker of the House, left, who spoke at the "Capitol Hill" Chapter meeting. House Majority Leader Carl Albert, right, holds Honorary State Farmer Degree from Oklahoma FFA.

National FFA officers and officials of the U. S. Office of Education attended as guests. Pictured below, with Joe Detrixhe and Howard Williams, are, left to right, Dr. Grant Venn, Dr. Edwin L. Rumpf, and Dr. Walter Arnold.

Can an engineer have designs on a computer?

An engineer sits at the console. Working a keyboard, he calls for a specific drawing that is stored in a computer. The drawing appears on the screen before him. With an electric pencil, he can add or delete lines and surfaces. Or move them around. Or study them from other angles. At a touch, his ideas take visual shape before his eyes.

Wishful thinking? Not now!

At the General Motors Research Laboratories, researchers have developed the world's first system to put computer speed and accuracy into the hands of the automotive designer. It's called DAC–Design Augmented by Computers.

The prototype system (DAC-1) was shown to Ross Bohms when he visited the General Motors Technical Center in Warren, Michigan. Ross is a 17-year-old senior at nearby Warren High School. A member of the National Honor Society, Ross plans to be a math major in college and possibly teach math later on. It took him very little time to get the hang of DAC-1. Using the electric pencil and keyboard to guide the computer, Ross immediately saw the results of his actions on the DAC screen.

Design Augmented by Computers aims to free creative people from the routine and drudgery aspects of the engineering design process –so they can spend more time creatively. Just think of the benefits to motorists in years ahead: engineering advances being introduced more quickly; a wider variety of models; and the quality of the finished product greatly enhanced.

Picture that!

GM

General Motors
Makes Things Better

Chevrolet • Pontiac • Oldsmobile • Buick • Cadillac •
With Body by Fisher • Frigidaire • GMC Truck & Coach • Detroit Diesel •
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Reporting FFA news requires special proficiency in English and reporting.

Some tips on selecting

Your Chapter Reporter

The chapter reporter is your community interpreter. He can make or break the public image of the FFA.

By Gene Kroupa

IS THERE SOMEONE in your FFA chapter who makes good grades in English, likes to talk with people, and has a knack for writing good reports and stories? If so, keep his name in mind when it comes time to elect a new chapter reporter.

Your chapter reporter is your interpreter. His job is to interpret the chapter activities for people in your school, community, county, and state. He must select the important facts and present them in an interesting, informative, and accurate news story. Often he uses other means, such as radio, television, and exhibits, to explain the happenings of your chapter.

The chapter reporter is a mighty important fellow who can make or break the public image of your chapter. You can talk among yourselves about how great a job you are doing, but people outside the chapter will not learn of your accomplishments unless you tell them. Today, there are many groups which, like your FFA chapter, depend strongly upon the support of the community. The only way the modern FFA chapter can compete with these other groups for public acceptance and help is to let people know that your chapter members are worthy of their support.

The election of chapter officers is your opportunity to see that the right fellow is put in charge of this all-important public relations job. You know the characteristics of the fellows in your chapter. See how they measure up to these qualities of a good chapter reporter:

- **Maturity.** Regardless of year in school, he should be a mature-acting fellow who can accept responsibility.
- **Proficiency In English.** He should be able to speak and write clearly. Look for someone who has had experience working on the high school yearbook, newspaper, or makes good grades in English. Also, consider fellows who have worked on debate teams or have competed in parliamentary procedure or public speaking contests.
- **Time.** Look for someone who will take time to do a good job. The saying, "If you want something done, ask a busy man," might apply here.
- **Interest In Reporting.** If a fellow expresses an interest in reporting, think twice before disqualifying him.
- **Inquisitive Nature.** Pick a fellow who wants to know the why, when, where, and how of everything that goes on. You know him by all the questions he asks in class and on field trips.
- **Interest In People.** Meeting people is an important part of reporting and public relations work. Look for a fellow who enjoys being with people and feels at ease when talking with them.
- **Active.** A fellow doesn't have to be a socialite to be considered active in chapter, school, and community affairs. Yet he should have some experience in these areas of social relations to do a good job of reporting. Past performance is a good clue.
- **Character.** Your public image as well as that of your chapter is at stake. Make sure that your next chapter reporter is a fellow who will do his best to maintain a good public image for your chapter.

You might be hard pressed to find one fellow with all of these qualifications, but someone will have more than others. Be honest with yourself and give everyone a fair shake when considering his merits. Remember, whom you select as chapter reporter is important not only to your chapter, but to all Future Farmers of America.

"Okay, okay! So we don't play William Tell."

HERE NOW!

PLANT NEW ZEA IIII

FUNK'S G HYBRID

The Producers of Funk's G-Hybrids* announce an all-new group of hybrids—the most advanced hybrids in history. Their name: ZEA IIII Funk's G-Hybrids.

"ZEA" is from the scientific name for corn. "IIII" represents the 4 great areas of corn research which produced the extra-profit performance factors in these great new hybrids:

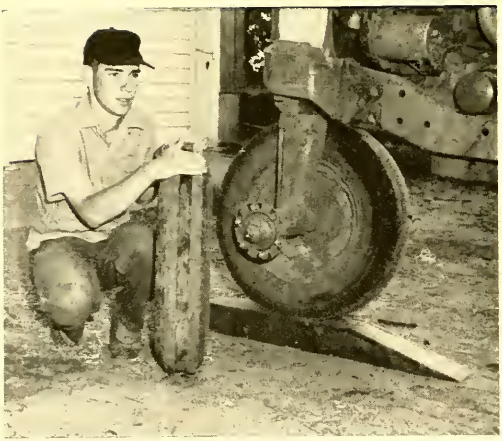
- I UNMATCHED YIELD POWER
- II PROVEN FOR NARROW ROWS AND HIGH POPULATIONS
- III RUGGED DEPENDABILITY
- IIII HIGHEST QUALITY GRAIN

New ZEA IIII Funk's G-Hybrids are available in single, special and 4-way crosses for every corn growing area of the U.S. and Canada. Your Funk's-G dealer has them *now!*

FUNK'S G HYBRID

THE PRODUCERS OF FUNK'S G-HYBRIDS

*Funk's G-Hybrid is the registered trademark of Funk Bros. Seed Co., Bloomington, Illinois



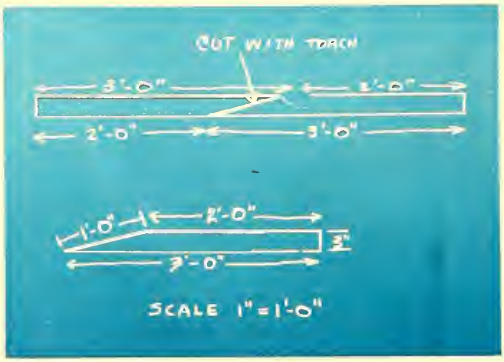
Darrell Fenske, Markesan FFA Chapter, shows how to use the steel incline to raise the front end of a tractor.

The steel incline makes quick, yet safe, work of changing tires or doing wheel bearing work on tri-cycle tractors.

Farm Shop Feature

Steel Incline for Tri-Cycle Tractors

This diagram gives the dimensions and shows how you can get both sides out of one piece of steel 1/4" by 3" by 5'.



THE TASK OF doing wheel bearing work or changing front tires on tri-cycle front end tractors has always been a problem. This steel incline is a farm shop idea that can make the job easier and a lot safer than using several wooden blocks. The tractor front end is raised off the ground by running one wheel on to the incline, and the other wheel hangs free.

The incline is made from ¼" steel. You will need two sides (cut from one piece, ¼" by 3" by 5' as in diagram); three braces ¼" by 4½" by 2¾"; one brace ¼" by 4½" by 2"; a top ¼" by 4¼" by 2'; and a top for the incline slope ¼" by 4½" by 1'.

To assemble the unit, place the two-foot long top on the welding table or on a flat surface. (You will be assembling this unit upside down.) Then put the two sides in place. Space the three braces which are the same size in the top two-inch area. The first can be six inches from the end. Use a six-inch "C" clamp near the ends. Tack weld the brace pieces in place.

Next, set the one-foot long top piece into place. Make certain that this piece is between the two sides and flush with the top of the sides (just as the two-foot top will be when you turn it right side up). Now place the smaller brace and tack weld it.

Last, weld the top pieces using a skip welding technique; weld 2" and skip 4". (NOTE: For John Deere "Roll-O-Matic," an incline that raises the front end at least seven inches is needed for the 4010 and 4020 series tractors. The front end would need to be raised at least six inches for the smaller models.)

This farm shop idea was submitted by Mr. Arlyn W. Hollander, vocational agriculture instructor at Markesan, Wisconsin.

Editor's Note: The National FUTURE FARMER *needs farm shop project ideas of items that FFA members can build. We will pay $20.00 for the best idea published in each issue and $10.00 for each additional item used. Submissions must include a clear black and white photo along with a brief yet complete description of materials used and a few pointers on how to build.*

New favorite of men on the move . . .

. . . with an eye on costs, is the Oliver 1850 tractor. One big reason is productivity. With its 92 Certified Horsepower, owners disk as much as 75 acres a day with heavy 18 to 21 ft. disk harrows. Or plow 300 acres in 10 days, using under 2 gal. of fuel per acre.

Traction almost made to order is another reason. You can factory equip the 1850 for effective operation in nearly any field condition—through wide choice of tire sizes, single or dual rear wheels, 2 or 4-wheel drive. Latest is new hydraulic front wheel drive for added traction without sacrificing row-crop clearance, tread adjustment and short turning.

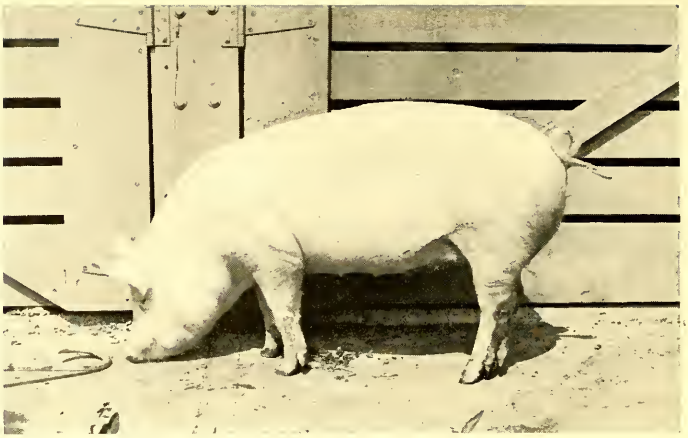
Other options provide special transmission speeds, choice of hydraulics, unusual comfort. With this Oliver 1850, top farmers are writing their own special equipment tickets—making their first choice in big power even more efficient. If you're a man on the move, get the Oliver 1850 story now. Oliver Corporation, Chicago, Illinois 60606.

Four-wheel drive with individual hydraulic motor for each front wheel.

OLIVER

Hog Raising

South Versus The Midwest



Would this hog make more money for his owner in the South or in the Midwest?

WARMER WINTER weather and other advantages of growing hogs in the South are about balanced by other advantages of hog farming in the Midwest.

This conclusion is drawn from results of a study recently conducted by an agricultural economist of the University of Georgia.

Dr. R. J. Amick of the Georgia Experiment Station at Experiment, Georgia, said feed requirement calculations showed that Southeastern areas had the advantage over Midwest areas during winter months. However, only minor differences in feed requirements during other periods of the year were found among areas.

The Southeast also has advantages of lower labor and building costs, but these are offset, for the most part, by the advantage of lower feed costs in the Midwest, Dr. Amick said.

For example, Piedmont and Coastal Plain areas of Georgia have an advantage over some of the Midwestern areas during four of the fall-winter feeding periods, but are at a disadvantage during the eight other feeding periods. The greatest disadvantage for the South occurred during periods when feed requirements were about the same in all areas, and when the differentials in corn prices were greatest.

Dr. Amick said results of his study do not preclude increased production of hogs in the Southeast based either on locally produced feeds or feeds transferred from the Midwest. Hog production may or may not be one of the better farm enterprises of the region, he declared.

Which bike for you?

Some friendly pointers from your Triumph dealer on how to choose the right motorcycle.

Now!—Mail coupon today

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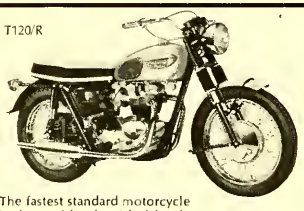
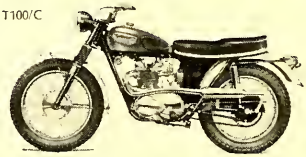
Cut or Tear

T120/R



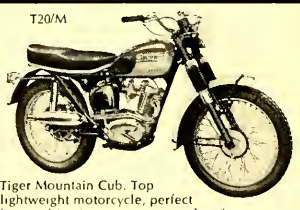
The fastest standard motorcycle in the world today. Ideal for the expert rider who wants full power. 40 cu. in. (650 c.c.)

T100/C



A middleweight racing bike. Long-time champ in Woods, Enduro and Club competition. 30.5 cu. in. (500 c.c.)

T20/M



Tiger Mountain Cub. Top lightweight motorcycle, perfect for roughing it cross-country or hunting. (200 c.c.) 4 Cycle OHV.

Motorcycles are like automobiles—there's a right model for every owner. There are big motorcycles and small ones. Some for racing, others for the highway. Who can help you choose? Your Triumph dealer can. He's the best friend around when it comes to picking a motorcycle. See him soon. And have him arrange a test ride for you.

TRIUMPH

CHANGING THE SIGN

A PARTNERSHIP WITH a signed agreement . . . this is one of the many routes chosen by Future Farmers who work their way into full time farming.

Vocational agriculture and FFA experiences have opened career doors for hundreds of thousands of boys into the adult world of work . . . mainly agricultural careers.

For a Future Farmer like the one in this painting who has a love for the land and is taking full advantage of vocational agriculture and FFA, the doors are also opened into production farming and ranching, and eventual ownership of his own business.

It's a point in his life worth marking on a sign. His parents are pleased with his choice . . . both they and his vocational agriculture teacher know the land can be good to an educated, scientific farmer.

Thus, this picture, entitled "Changing The Sign," tells the FFA story!

"Changing The Sign" was produced from an original painting by artist Arthur Sarnoff. It was especially painted for use on the 1967 Official FFA Calendar. It will serve as a storyteller to spread the word about FFA in communities all across America—calendars in the homes, banks, elevators, feed stores, hardware stores, schools, and offices.

The 1967 Official FFA Calendar can be a year-round promoter for your FFA chapter too. The colorful pictures show Future Farmers in action—feeding livestock, swimming at camp, judging soil or dairy cattle, welding in shop, and studying plants on a field trip. All typical of the many FFA activities your chapter has throughout the year.

As a storyteller, the FFA Calendar does a topnotch job. It is especially designed so that its story will remind people of you and your chapter activities. There are three sizes of calendars to fit all needs—a desk size, a large poster size, and one size just right for the home or office. Also, a calendar is long-lasting. It works for you for 12 months as part of the public relations program.

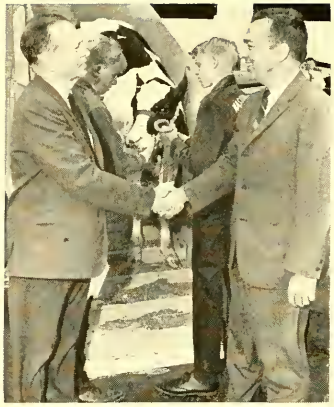
Your chapter can also accomplish other objectives in addition to telling people about FFA with the calendar. If you and your fellow members choose to have a local business firm sponsor your calendar, you can earn money for the chapter's treasury. Or your chapter may decide to buy calendars and distribute them in appreciation to all the businessmen, parents, and friends who support your chapter's program. And you can buy a calendar for yourself or for your friends.

Now is a great time for your chapter to get in an order for 1967 Official FFA Calendars. You will want to have your order mailed by December 1, 1966. Be sure to talk this idea over with your chapter advisor for help in carrying out the program. He can send for a chapter guide which includes samples of the calendars, order blanks, and tips on getting FFA calendars in your community.

The Official FFA Calendar is published by . . .

The National
Future Farmer
Owned and Published by the Future Farmers of America
ALEXANDRIA, VIRGINIA 22306

FFA IN ACTION



Wachusett FFA members show how easy it is to load cattle onto airplanes with the ramp they built and designed for the officials of the "Heifer Project."

MASSACHUSETTS—Cooperation was a key part of a New England Heifer Project. The Wachusett FFA Chapter in Holden was called upon for help.

Each year, Heifer Project exports thousands of animals to foreign lands. They are flown from Logan International Airport in Boston. The livestock loading facilities at Logan have been inadequate to insure the safe handling of livestock. Animals had to be lifted manually on to the plane or raised by fork-lift trucks. These practices were particularly dangerous to the animals and the people involved. The problem was clear—a large step-type livestock loading ramp was particularly needed.

Members of the livestock committee of the Massachusetts Society for the Prevention of Cruelty to Animals called on Fred Warren and Dwight Stowell, vocational agriculture teachers at Wachusett, and their FFA chapter for ideas and help in building a chute.

The chute the chapter designed was very successful. Cattle were loaded on to the airplane—up the chute without even using a cane.

NEW JERSEY—Two brothers of Windsor Chapter were among the FFA Foundation Proficiency Award winners at the New Jersey State Convention. John Knapp, Windsor, received $100 as top poultry farmer in the New Jersey Association. He has 20 percent interest in 2,500 Leghorns and owns 200 broilers. John has also scored high in state poultry judging contests.

His brother Paul also won $100 for his livestock farming program. He has more than $2,000 invested in his livestock—beef cattle, sheep, swine, and dairy cattle. Paul hopes to begin livestock farming on his own.

The other Foundation Proficiency Award winners were Bruce Sharp, Medford Lakes, ornamental horticulture; Raymond Huizenga, Fredon, soil and water management; Richard Bauch, Branchville, home improvement; William Kelly, Jr., Woodstown, crop farming; Robert Clark, Newton, dairy farming; Frank Clifford, Columbia, farm mechanics.

Star State Farmer for New Jersey was William Search, Cream Ridge. He received $200 for the top award based on his supervised farming program, leadership, scholarship, and involvement in farming.

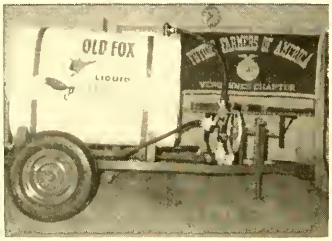
WEST PAKISTAN—Lloyd Wiggins, overseas representative for the FFA Peace Corps project in West Pakistan, has returned to the United States to report the results of the project. Dr. A. W. Tenney, former national FFA advisor, serves as head of the project in Washington, D. C.

The project was sponsored jointly by the FFA, the Peace Corps, and the Department of Agriculture of West Pakistan. Mr. Wiggins has a background in modern methods of agriculture education which enabled him to give technical guidance to volunteers and to provide liason with the Pakistani leaders. The volunteers draw heavily upon their agriculture and leadership training they have gained from FFA and vocational agriculture.

Lloyd Wiggins gives his report on FFA Peace Corps work to A. W. Tenney.

The volunteers worked in the field of agriculture to help improve agricultural productivity, demonstrate methods of plant and animal protection, and teach maintenance, repair, and operation of farm machinery.

This fertilizer applicator is an earn and learn project for the FFA chapter.



VERMONT—Members of the Vergennes FFA Chapter have a dual-purpose project that puts extra money in the chapter treasury as well as gives the members a chance to learn farm shop techniques.

The chapter has accepted an offer from the Old Fox Fertilizer Company to construct and assemble liquid fertilizer applicators. The company supplied all the parts and materials.

The Future Farmers received $1.11 per hour for their labor. The work was done with crews, and each crew had a different job on the project each day.

The frames for the applicators were built from three-inch channel iron, and used car axles were inverted and bolted to the frames. Crews worked to assemble pumps, pulleys, nozzles, and to measure and cut the plastic hose. The rigs were painted bright red, and the tanks were white.

Accurate records on the project showed the total hours and the value of each boy's labor based on the time he had worked. *(Cola D. Watson, State FFA Advisor)*

Not a flying saucer, but the location of the Illinois State FFA Convention.

ILLINOIS—How would you like to attend a state FFA convention that was being held in a flying saucer? The 2,000 Illinois Future Farmers of America who attended the Illinois State FFA Convention could tell you what it is like, because they met in the University of Illinois Assembly Hall.

The Assembly Hall, an eight-million dollar structure with a 16,000-person seating capacity, looks like a grounded flying saucer and is equipped with the most modern electronic equipment available for temperature control, lighting, and communications. The concentric rows of bucket seats give everyone a clear view of the main floor stage.

The Illinois FFA has been using this space age structure for its conventions since 1963. The ultra-modern construction and atmosphere of the structure add to the drama of such convention high lights as the naming of the Star State Farmer and the election of state officers.

Bill Rutledge, 17, son of Mr. and Mrs. Beryl Rutledge of Farmer City, is this year's Star State Farmer of Illinois. Bill's diversified livestock operation, which last year won him the state Livestock Production Award, consists of 10 Angus beef cows, 16 grade Suffolk ewes, and a 30 percent interest in 200 purebred Hampshire hogs. Bill works in the Farmer City Bank during the summer, and he plans to enroll in the University of Illinois College of Agriculture next fall.

A proud moment for the parents of Bill Rutledge, Illinois' Star State Farmer.

State officers elected during the convention include president, Enid Schlipf, Gridley; vice president, Bill Wills, Forest City; secretary-treasurer, Phillip Wagenknecht, Milledgeville; and reporter, Don Nelson, Wenona. *(Gene Kroupa, FFA Information Specialist)*

PENNSYLVANIA—Wild game in the area of Twin Valley High School, Elverson, will find safety in a two-acre plot set aside as an FFA wild game refuge.

The preserve serves the dual purpose of protecting game and providing vo-ag students with an opportunity to study wildlife management firsthand. It will be surrounded by a fence and marked "off limits" to hunters. Feed will be provided in the winter, and brush piles will be constructed for nesting. The Future Farmers also plan to construct a water area on the grounds.

The Pennsylvania Game Commission will supervise the project, but it will be up to the FFA members and their advisor, Mr. Thomas Wolfe, to keep it attractive to pheasants, squirrels, and other wild animals. *(Vincent Argondezzi)*

ARIZONA—Gary Henley of the Amphitheater FFA Chapter was named winner of the $100 FFA Foundation Award for his supervised work experience in agri-business.

Because Gary did not have an opportunity for farming, he turned to the supervised work experience program and has become proficient in the agribusiness field of lawn and yard maintenance. Some of his activities in this area are mowing lawns, trimming shrubs, fertilizing grass, trees, and flowering bushes; trimming palm trees, planting flowers, shrubs, and trees. Besides learning the correct procedures for proper landscaping, he also earns wages. At the present time he is assistant gardener at the Amphitheater Public Schools in Tucson.

Star State Farmer of the Arizona Association was also named at the state convention. Rick Snure of Douglas was presented the award by Mrs. Sarah Folsom, state superintendent of public instruction.

Pete Cockrill, Coolidge Chapter, was named Star Green Hand of Arizona.

CALIFORNIA—Gilroy FFA members can learn conservation techniques first-hand on the school farm.

Gilroy is just 75 miles south of San Francisco in the heart of California's prune-growing area. The 5.6-acre farm is owned by the high school. Gilroy Union High School and the FFA chapter are an accepted soil conservation district cooperator in the Loma Prieta Soil Conservation District.

The land is Class II and III farmland suitable for irrigated cropland, pasture, orchards, and ornamental horticulture. On part of the farm, FFA members have also built a barn and pens for steers, sheep, and swine.

Vocational agriculture instructor Vance Baldwin has stressed "learning by doing" to apply conservation practices like irrigation water management, cover-cropping, crop residue use, and grassed waterways.

Land judging is an important part of Gilroy's program, and the Gilroy FFA team has won the county judging contest five times.

The entrance to the Gilroy FFA's farm laboratory.

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Plan Your Packing

WHEN YOU PACK your suitcase for your trip to the National FFA Convention or any other trip, you will always want your clothes to look sharp after you arrive. Here are some suggestions for packing which may help you do just that.

Choose a suitcase which will accommodate your clothes and accessories without overcrowding. Place the heaviest articles, such as camera, shaving kit, and shoes (toes filled with belts, socks or other small articles) in the suitcase first. Fill in space between these heavy items with underclothes or socks neatly rolled or folded.

Choose clothes of wrinkle-resistant fabric when possible, as these are good "travelers." Lay trousers flat if your suitcase does not have provisions for suit and slacks to hang. Usually heaviest clothes go in first, the lighter ones last. Fold shirts last and put them on top so they will stay fresh. Try to keep the collars in shape.

You may want to place those items in the suitcase that you will use during the trip if you are to be traveling several days before reaching your destination. If the weather is changeable, you will probably need to carry an extra coat.

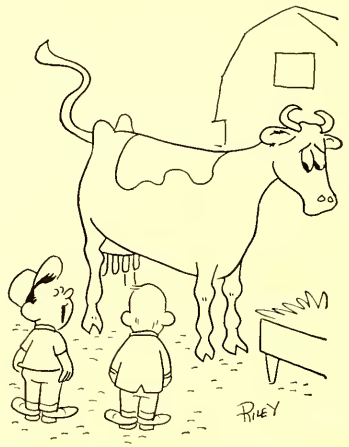
Put shaving gear and toiletries in a shaving kit. If you do not have a shaving kit, plastic bags such as freezer bags, securely fastened with a rubber band, will prevent any spilling of liquids or powder.

Unpack your suitcase as soon as possible after you reach your destination. Take shirts, slacks, coats, etc. out of the bag, place them on hangers, and hang them in a closet with space between each item.

Always plan ahead for things you will need and try to anticipate any weather changes, particularly if you will be away for any length of time. At the National Convention, you will be wearing your FFA jacket. Consequently, you will want to bring along dark slacks, several white shirts, and an FFA tie. Also, don't forget shoe-shine equipment, belts, tie-tacs, letter writing supplies, and stamps.

If you travel by car, clothes can be hung on hangers in a garment bag with practically no mussing while traveling. Be sure to hang the garment bag so that the driver's vision is not blocked.

Cartoon Caption Contest



Here is another Cartoon Caption Contest for your enjoyment. Just follow the simple rules and have fun. We will be looking for your entry.

PRIZES: First $15, Second $10, Third $5, plus five honorable mention prizes of a binder to hold your copies of *The National FUTURE FARMER.*

RULES: Find a caption for this cartoon in any of the **advertisements** in this issue of *The National FUTURE FARMER.* Clip the word or words you choose, paste on a postal card, and give the page number from which you clipped the caption. Your caption must consist of **consecutive** words or lines. Only postal cards will be accepted; one caption per card, please! Mail to *The National FUTURE FARMER,* Alexandria, Virginia 22306—before October 31, 1966. In case of duplications, the one with the earliest postmark will be considered. Entries will be judged by the staff and winners announced in the December-January issue.

What kind of research stands behind every Geigy product?

Behind every Geigy product is research that's more than just a search for new chemicals. Research at Geigy is dedicated to the development of dependable chemicals that definitely satisfy the specific needs of ever-changing farm practices.

New compounds which look promising in laboratory and greenhouse experiments undergo further screening at Geigy Research Farms in New York, Florida, Mississippi, Iowa, and California.

When a new compound's effectiveness is verified in these field plot trials it is released to agricultural colleges, experiment stations, and other testing agencies for their scrutiny and evaluation.

But, you know how farmers are. Despite all this rigid pre-testing, they want proof that a product works for them on their farm.

That's why we also make continual on-farm checks. For instance, Geigy fieldmen visited 4,653 farms in 1965 to check yields in corn treated with Atrazine herbicide.

We invest in this kind of research because we know we must be sure Geigy products do exactly what we say they'll do.

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Ardsley, New York 10502.

Geigy

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FFA in Hawaii

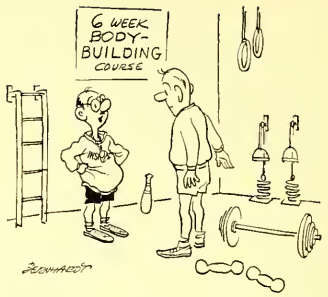
(Continued from Page 37)

found time to serve as FFA treasurer and be a member of the school's varsity basketball team.

Robert's farming program includes 11 head of cattle and a 144-bird poultry operation. In addition, he has selected some good gilts and a purebred boar to establish a swine program. Extra money is earned from supervised employment at the nearby Hutchenson Sugar Company.

Like so many other Future Farmers in Hawaii, Bob has worked to improve the surroundings of his home. "I started in 1963 by planting shrubbery and some cover crops obtained from the school. I also planted a litchi tree, one avocado, a Hayden mango tree, and several varieties of oranges and limes," he explained.

It is this affection for beauty that is the key to understanding FFA in Hawaii. They seem to believe that man's enduring accomplishments will be a product of his devotion to the beautiful. It's a worthy challenge for all Future Farmers.



"I only instruct you the first week."

Fatten Cattle Without Grain

(Continued from Page 39)

These silos were built by the Terrells themselves. "Many of the farmers around here didn't think much of these tilt-up silos when we first started building them in 1960. Now there is quite a bit of interest. Yesterday, a fellow stopped and asked if I would build one for him," Louis explained.

Since a cost for labor was not involved, the only cost was for materials. For a 264-ton capacity silo (32 feet by six feet deep and 64 feet long), the material cost was $931.50. For a 410-ton capacity silo, the material cost was slightly more than $1,000.

It takes an average of 20 minutes each day to tend each silo. This includes about one-half hour per week cleaning. It takes another 15 minutes or less to move the self-feeding rack each day.

Final proof of the Terrells' success at fattening cattle without grain came when Ray exhibited three of his silage fed steers and three heifers at the fifth annual Virginia Junior Commercial Producers Livestock Show and Sale in Richmond. "Two weeks before the show, I finally added grain to their ration," says Ray. His pen of steers won Reserve Grand Champion honors, while the pen of Angus heifers took Grand Champion honors.

Three keys stand out in the Terrell silage feeding program. Note these:

1. They obtain a forage test.
2. They harvest when the dry matter is between 35 and 43 percent.
3. They chop their silage fine.

The Terrell brothers attribute much of their and the FFA chapter's success to Mr. Coleman. A few years ago the C. T. Smith FFA Chapter was seldom heard from; now it is one of the top chapters in the state.

By the same token, Mr. Coleman gives much of the credit to the chapter's winning ways to the Terrells. This will be Louis' fourth trip to the national convention. He has served the chapter as president and is now secretary of Coleman's young farmer group. Ray Terrell has served as chapter treasurer and won the Livestock Award.

Do the Terrells plan to continue feeding only silage? "Sure, it cut 11 cents off our feed costs and produced champion beef," the Terrells agreed.

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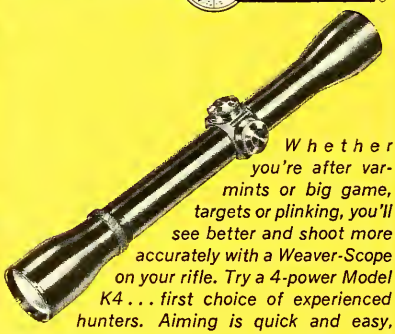

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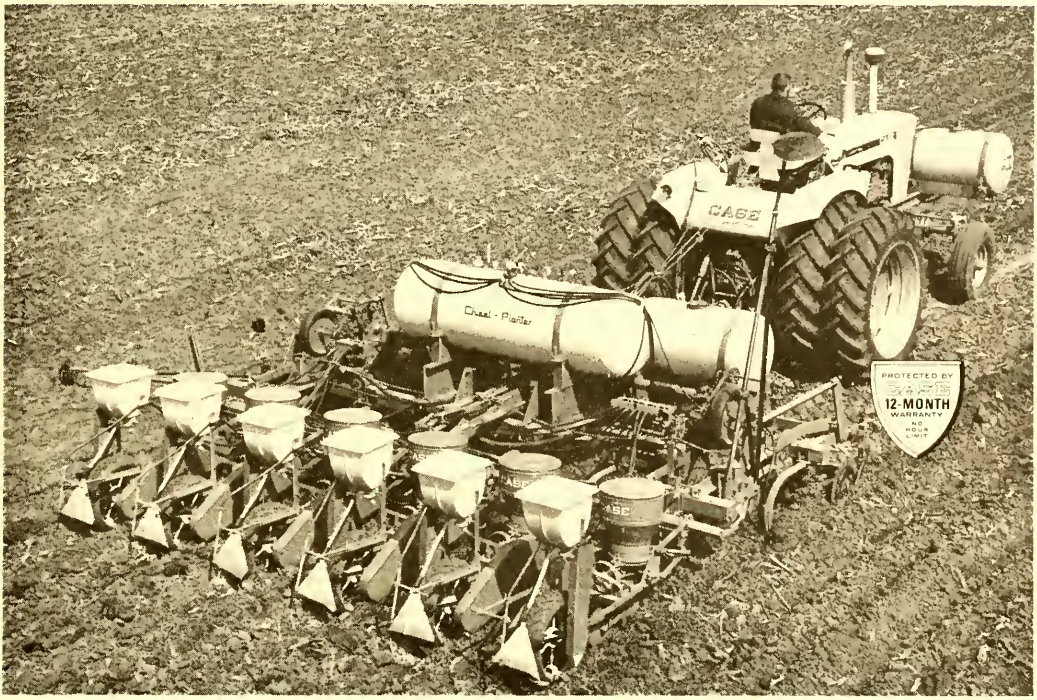

...quite a load for some tractors... but not for a 100 hp high-torque 1030

Handling 7 operations in one pass over the field is a neat cost-reducing practice. The farmer in the illustration above is doing just that with the Case Optimum Tillage System. He's cutting normal tillage and planting costs by as much as 50%—conserving moisture and boosting yields in the bargain.

But it takes more than just raw horsepower to handle this rig. It needs "horses," but more important, it requires high torque to maintain optimum working speeds.

It needs the kind of 7-plow high-torque power this new Case 1030 delivers. High torque born of big-bore cylinders, long-stroke pistons and a big-leverage crankshaft all operating at relatively low rpms. When the going gets tougher, this massive power reserve goes into action immediately. Implements continue to do their best work at a steady, big-producer clip.

The 1030 tractor and the Optimum Tillage System are symbolic of the new concepts of power application constantly under development at Case. If you'd like to know more about the 1030 or Optimum Tillage, ask your local dealer. He'll supply you with complete information. J. I. Case Co., Racine, Wisconsin.

GOLD SEAL Buy quality used equipment where you see the Case dealer's Gold Seal sign.

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Rural Appraisers With A Farm Background

By E. Hale Jones

Rural appraising is a relatively new field loaded with opportunity for young men reared on the farm.

THERE IS A BRAND new field opening up for you if you want to plow your farm background and vo-ag training into a career that will:

1. Pay you good money.
2. Propel you into business for yourself.
3. Enable you to make a worthwhile contribution to your community.

What's more, it is a door that is generally open only to farm-reared young men.

The career is rural appraising—and there's lots of room at the top. It is, without question, one of the fastest growing of all the so-called agri-businesses.

Simply put, a rural appraiser is one who determines the fair value of rural land for the benefit of both buyer and seller. He is often retained by a government agency such as a highway department, or by a private business such as a shopping center developer.

During the past ten years, millions of acres of farm land have been purchased for highways, suburban development, parks, schools, and countless other developments that are going up as our urban and suburban society grows.

The next ten years will bring a boom the likes of which we've never seen.

More highways will be built (land for much of the federal interstate system still has to be acquired); more farms on the fringes of cities and suburbs will be sold; more idle farm land will be bought up and either sold at a profit or held as a hedge against inflation; and industry will look more to the wide open space for new plant sites.

Joseph Timan of New York, chairman of the newly-formed Committee for National Land Development, said recently that at least 25 new and self-sufficient American cities will have to be built from scratch if we are to avoid a "complete breakdown of normal living patterns in existing metropolitan areas." These 25 cities, 20 of which would be west of the Mississippi River, "must be flourishing fully by 1995."

As one rural appraiser in Arizona put it: "The future is tremendous."

Appraising a farm or other rural land is more complex than appraising city or town property. Such things as climatic conditions, soils, topography, type of farming, markets, past and present prices received for crops, leasing information, the local land market, irrigation, drainage, and other characteristics have to be considered.

The American Society of Farm Managers and Rural Appraisers cites the case of Henry Simpson who died and left three farms in two states, a widow, two sons, a married daughter, and no will. An appraisal of the estate was needed, because inheritance, property, and income taxes had to be paid; and a fair distribution to the heirs had to be worked out.

Mr. Simpson's son John, who lived on the home farm, was sure "Dad intended that farm to be his." The older son George, who lived in Syracuse, New York, also voiced the hope that Mother and John could stay on the home farm. Son-in-law Harry Gold, living in Texas, reported for daughter June and said, "We'd like cash for her portion . . ." Suddenly, the value of Mr. Simpson's farm property became very important.

Mrs. Simpson and her attorney asked a local sale barn operator and a neighboring farmer to appraise the farm. They set a value of $275 per acre compared with $390 per acre that was assessed to the property by the tax examiner. Mrs. Simpson agreed to pay the tax on the basis of $390 when she was told that a more qualified appraisal would have to be made in order to appeal the assessment. When the sale barn operator reported confidentially to Harry Gold that the home farm should sell for $475 per acre, John decided it was time to have a good appraisal made. He subsequently retained Hal Palmer, an accredited rural appraiser, who appraised the fair market value of the farm at $435 per acre.

Meanwhile, Lee Scott, another accredited rural appraiser, was employed to appraise a second Simpson farm in the same state. Accompanied by careful and complete documentation, Scott's appraisal of $250 an acre was accepted by the tax examiner but not by son-in-law Harry Gold. Harry, knowing that 24 acres from this farm had recently been sold for $350 an acre in a highway condemnation settlement, thought the rest of the farm (including buildings) should be worth just as much. But Gold overlooked a few things that appraiser Scott did not.

Scott's appraisal listed recent nearby land sales and made direct comparisons with the Simpson farm. He analyzed the earning power and tax assessment values of both the Simpson farm and those surrounding it. And finally,

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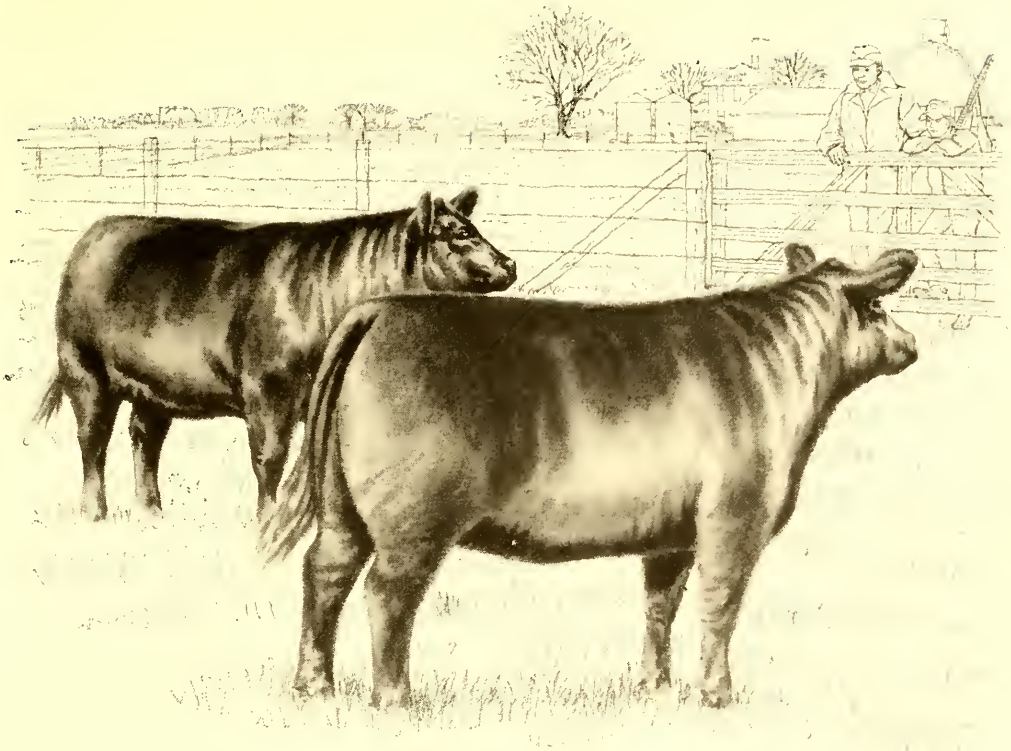

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Why?

One reason is—quality Angus steers bring an extra dollar or two when sold, netting more profit opportunity for you.

Just check the feeder auctions. And look at fat steer sales. You'll see Angus top the market about 80% of the time.

The packer pays more for Angus because they cut out a superior carcass and more saleable beef for him. For Angus usually have *less wasteful bone, belly and brisket.*

Less calving trouble—less work

What's more, with Angus you'll have less calving trouble. Heifers have bred-in hardiness, and Angus calves have smaller, polled-shaped heads that help make calving easier.

Angus cows nourish their young under adverse conditions too, for they are not bothered with snow-burned or sunburned udders. Angus do not have cancer eye and have natural resistance to pinkeye.

Angus are also naturally hornless so you have no troublesome dehorning problem. And Angus calves are not set back by unnecessary dehorning.

What's all this mean to you? *Less worry and much less work.* And at today's labor prices you'd be money ahead with Angus.

Build for your future

Remember, you don't just buy an Angus heifer—you invest in her earning power. And the earning power of Angus will increase—for naturally hornless Angus will be more and more in demand in years to come.

What's more, you'll produce sound, sturdy calves with less wasteful bone, belly and brisket—calves that will bring you more money.

Yes, Angus heifers are a good, sound investment. Why don't you start your Angus herd this year?

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Rural Appraisers

(Continued from Page 80)

Scott pointed out that when the state paid $350 in the highway condemnation matter, the price included severance damages.

The third Simpson property was a dry land farm in California. Here again, a professional appraiser was employed. He estimated its fair market value at $350 an acre even though he knew it had been purchased in 1960 for $300. Why? Because, in making his evaluation, the appraiser considered not only other recent sales in the community, but also this particular property's irrigation potential, the typical purchaser, the costs of irrigation development, and the earnings such an irrigated farm would likely generate.

After all the professional appraisals were made and considered, it was agreed that John should have the home farm at $435 an acre; George would take the second farm at $250 an acre: and June Gold would receive the California land at $350 an acre.

Considering all that went into the appraising and distributing of these farm properties, is it any wonder that a successful appraiser on the fringe of a large city said, "We're hiring farm boys as fast as we can find them."

One successful appraiser always on the lookout for farm-reared, college-trained young men is Clifford Orbaker of Doylestown, Pennsylvania, one of the authors of a manual on rural appraising which is being used as a college text.

Orbaker's career parallels that of other young men who distinguished themselves in FFA, went to college, got into farm management, and then switched to rural appraising. Winner of New York State's Empire Farmer Degree when he was in FFA, Orbaker became a professional farm manager soon after his graduation from Cornell. He opened an office in Rochester, New York, and managed 20 fruit and livestock farms. Three years later, he moved into the Philadelphia, Pennsylvania, area and expanded his farm management business west to Ohio and east into New England.

Soon, the demand for his talents as a rural appraiser began to outstrip those of farm managing. Today, with this firm involved in appraisal work for the New York City Board of Water Supply, several highway departments, municipalities seeking water reservoirs, and various urban renewal projects, C. L. Orbaker and Associates has 17 young farm-reared men on the staff. Of these, 11 are under 30, and five are just out of college.

"We'll start a young man somewhere between $5,400 and $6,000 a year," Orbaker said; "then, after a two-year apprenticeship, we let him keep a percentage of the income he generates." Understandably, Orbaker didn't want to say precisely how much a young man could make under this arrangement since "so much depends on a fellow's energy and ability." But, talking with Clifford Orbaker, one certainly gets the impression that his men are turning their farm backgrounds and vo-ag training into some attractive paychecks.

Orbaker is a rural appraiser who has grown big and wants to grow bigger. He has already doubled the capacity of his Doylestown office and has opened

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Complete Information on Seed Treating... Yours for the Asking!

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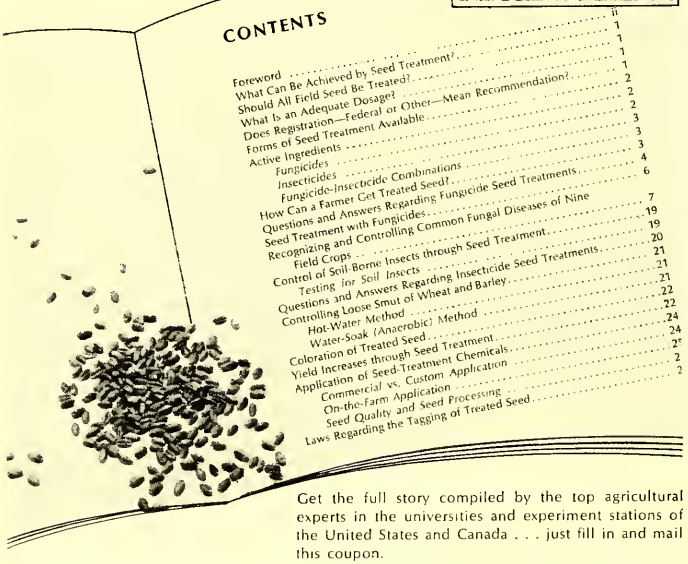

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AGRICULTURE and YOUR CAREER

Agriculture in the future offers unbounded opportunities to the man who has prepared himself to meet its challenges.

The revolution in techniques and practices we've seen in the past few years shows no sign of lessening. Even now, scientists and specialists in our nation's Land Grant Colleges are testing new concepts and ideas which will give a new shape to farming in the future. And the influence of agriculture is spreading more and more into other areas of commerce and industry.

At DOANE we speak of future careers in this challenging field as "Agribusiness". And the men and women who succeed will be those who have expanded their education to meet agriculture's changing role.

Colleges are recognizing these changing patterns...broadening the scope of study for agricultural students so they will be able to meet the new and broader demands of agriculture and agricultural-related careers. Agricultural research, training for industries serving agriculture, business courses preparing students to manage agriculture as the major industry it is — these and other specialized courses as well as intensified training in farming and ranching itself — prepare students as never before.

The demand for agribusiness graduates exceeds the supply. We at DOANE welcome the opportunity to explore with you the great future... the great opportunities...that await you in an agribusiness career.

H. G. E. Fick
President

DOANE, established in 1919, is the oldest and largest organization in the United States engaged in farm management, agricultural writing, rural appraising, farm real estate sales, and agricultural marketing research.

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Instinct

1. Hold your head straight with both eyes open looking on a line of sight 1½ inches above gun barrel. Keep chin against stock.

2. The thumb should be over pistol grip, and the right elbow slightly down. The left arm is extended, gun butt placed against shoulder.

3. Practice with ground targets. Look in front of target, concentrate on the sight where object meets the ground. The barrel will seem an inch or two in front of target.

IS THIS YOUR PROBLEM? You're burning up shotgun shells at a rate that will soon have you in the poorhouse, and you can't hit the side of a barn. Well, brother, it's time to turn to instinct shooting.

About 50 percent of the shotgun shooters in America have the same problem, mostly because they are once-a-month shooters, who never have the time or opportunity to take private lessons, even if ample instructors and facilities were available.

Instinct shooting isn't a "cure-all" for your misses, and don't expect to win the Grand National after spending an hour or two practicing its basic principles. Shooting, like every other sport, takes practice and more practice if you want to be good.

Instinct shooting is designed for the beginner; for the shooter who can't spend hours and money at a gun club, but who still likes to knock down a good number of targets when he goes shooting.

You start with a BB gun, because it's inexpensive . . . BB's cost less than one-twentieth of a cent each. Some models have been especially designed for this type of shooting. However, you can make any model do the job by removing the front and rear sights.

Once you have the gun and BB's, the purchase of some six-inch paper plates, a few styrofoam floats, one and two-inch washers, plus a pair of inexpensive plastic glasses (which must be worn whenever you shoot) puts you in business.

4. Next step. Try eye-level targets. Paper plates and styrofoam floats are good. Keep gun level with a sight about 1½ inches over the barrel. Don't sight, just point and shoot.

5. As you progress, you'll find that the smaller the targets, the better you will point and hit without sighting your gun.

6. Now take a position with your back to the target. Turn by pushing gun forward from port arms. When you see target, shoot.

hooting

For the most part, instinct shooting with the BB gun can be done in the average backyard. As you become proficient and move on to the .22 rifle with bird shot, and later the shotgun, you'll have to find a larger and safer shooting area.

Once you have become proficient, you can continue to sharpen your shooting with just the use of your BB gun. During the winter months, it's easy to set up a safe indoor practice range in your basement, or even in your living room if you can get your mother to agree. A special indoor BB catcher made with Targetex is an excellent backstop.

Instinct shooting is learning to point your gun with both eyes open just as you would point your finger at any object. Try it: point at a door knob with your forefinger and keep both eyes open. We'll bet you're right on it, and the same will hold true with a gun if it is positioned correctly.

Because of the controlled velocity of a BB gun, you can soon learn to see the BB in flight and come to know just why and by how much you're missing your target.

On ground targets, most misses are from shooting over the object. On aerial targets, most misses are from shooting under the target. And on moving targets, you miss because you fail to keep the gun moving with the target, stopping the movement when you squeeze the trigger.

7. You're ready for aerial targets. Move on target from the waist and shoulders so gun is part of body movement. Have a friend throw a washer 10 to 15 feet in the air. Your line of sight should be slightly over target. Follow and shoot when you see it.

8. As you start hitting, you will be able to see the BB in flight and know how much you are missing. Try hitting a BB with a BB.

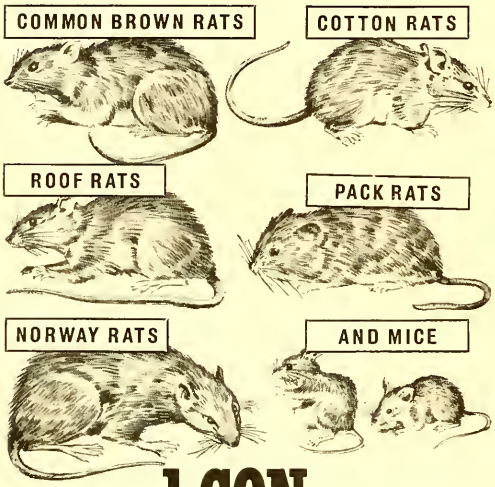
9. Right—Next step is a .22 rifle with bird shot. Have a Mo-skeet clay bird thrown 30 to 40 feet. Start in regular position, but as you progress learn to bring gun to the shoulder from port arms.

Editor's Note: This article was prepared by George Carson, Outdoor Editor of the St. Louis Globe-Democrat, *in cooperation with Daisy Manufacturing Company.*

10. Now you are ready for the shotgun. Have a friend throw a single clay bird. When you start hitting one, try for two, but remember take the highest one first.

11. Below—Move to a fast throwing trap. Remember—for low targets, sight slightly below the target; eye-level targets, direct; and aerial targets, sight above. Lead the bird and keep that gun moving with target.

THESE RATS and MICE ARE GOING TO DIE!



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To rid your place of rats and mice, get d-CON for complete rodent control—it has a government recommended ingredient that kills every kind of rat—and mice, too!

"Looks like we both made a mistake. You thought my cow was a deer, and I thought your bike was a predator . . ."

Precision Planting

(Continued from Page 33)

These applicators were built onto machines normally used for planting sugar beets and tomatoes, but with a minimum of alteration they can be attached to any precision or hill drop planter.

An indication of the importance attached to the PEP program is evidenced by some of the firms currently working on PEP machines. These include Spencer Division of Gulf Oil Corporation, the Union Carbide Company, and the Ariens Equipment Company, all of whom have designed precision planters which feature a vermiculite applicator as an integral part.

PEP Research

The University of California and California Zonolite Company have performed a great deal of research in the precision environmental planting program. The University has experimented for years with a variety of soil amendments, of which vermiculite has provided the most consistent results. Other University researchers are studying vermiculite's effectiveness as a carrier of pesticides and fertilizers when used as seed cover.

In one such test, cabbage maggot control with 0.6 percent insecticide was added to vermiculite being used as a seed cover for broccoli. In all, seven one-half cubic foot samples were taken from both treated and untreated soil. These were examined for number of larvae present. The seven untreated samples averaged 62.4 larvae per half-cubic foot, while the insecticide-vermiculite treated soil averaged a low, 4.5 larvae per half-cubic foot of soil. This represented a 93 percent reduction in insect population. The crop showed it too.

An extensive demonstration program is planned this season for distributors and growers in California. Initially, sugar beets and tomatoes will receive the lion's share of attention in the PEP program.

Excited proponents of the system say its eventual impact on the industry will be equal to that caused by the introduction of hybrid corn. Highly optimistic? Perhaps. But understandable too, when one considers the prospects of near perfect stands measured against this country's rising land and labor costs.

Editor's Note: R. E. Rothfelder is an agronomist with the California Zonolite Company.

Rural Appraisers

(Continued from Page 82)

branches in Binghamton and Poughkeepsie, New York. How fast his firm continues to grow will depend in large measure on the availability of farm-reared, college-trained young men. The business is there.

Another successful rural appraiser is Paul Calebaugh of Williamsburg, Ohio, who in contrast with Orbaker runs a one-man shop. Calebaugh went into business for himself in 1962 and since then has had "so much work that I've never been able to catch up."

Why? "Because people and organizations who need a rural appraiser want to give their business to a farm boy, and there's just not enough of them to handle all the work. City boys hate like sin to go into the country," he says.

Like most rural appraisers, Calebaugh started in professional farm management.

"Farm management is still an attractive field," says Calebaugh, "but rural appraising is much more so."

Apparently most of the nation's professional farm managers agree with Calebaugh for they're beginning to swell the special rural appraisal schools offered by the American Society of Farm Managers and Rural Appraisers, and an increasing number are taking the Society's rural appraising accreditation examinations.

Clifford Orbaker, who serves on the Society's accreditation committee and travels around the country giving the examinations, said 90 percent of the newcomers are taking the appraisal exams instead of the farm management exams. Just five years ago, it was the other way around.

Today, some 40 percent of the Society's members are qualified rural appraisers. Orbaker expects this to rise to 60 percent within the next five or ten years and keep rising.

How does a young man get into rural appraising? Here is a composite of suggestions made by successful rural appraisers around the country:

1. Get all you can out of your vo-ag classes, particularly farm management.

2. Go to a college of agriculture and major in agricultural economics. Ask about the courses in land economics and rural appraising.

3. Write to the American Society of Farm Managers and Rural Appraisers and get a list of its members in your area. (The executive secretary is Harold F. Borman, P. O. Box 295, DeKalb, Illinois 60115.) Perhaps one of these firms will offer you a summer job while you're going to school.

4. Get to know a real estate broker and obtain a real estate sales license.

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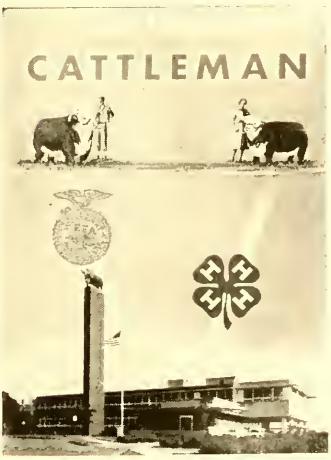

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Frank Robinson

SPORTRAIT

By Stan Allen

THE BALTIMORE ORIOLES appear to have the American League pennant cinched this year with a 10-game lead going into the last month of the season. In his first season with the "Birds," Frank Robinson, ten-year veteran of National League play, has been a mainstay in the Oriole attack.

Robinson was acquired from the Cincinnati Reds last December after ten outstanding years with the Reds. Originally from Beaumont, Texas, he was signed by Cincinnati right after graduation from McClymonds High School in Oakland, California, where he starred in baseball, basketball, and football. As a teammate of Boston Celtic star Bill Russell, Frank played three years of basketball and was an All-City selection his senior year. He scored six touchdowns running from the halfback slot in the one year he played football, but he gave it up to concentrate on baseball. He led McClymonds to three Oakland City championships and was named to the All-City team each year. His batting average was .424.

Robby got off to a fine start in pro ball with Ogden, Utah, in the Pioneer League, hitting a .348 average with 17 home runs and 83 runs batted in over 72 games. After two good seasons with Tulsa in the Texas League and Columbia, S. C., in the Sally League, Frank joined the Reds in 1956. He was voted National League Rookie of the Year in 1956 after hitting .290 with 38 homers, 27 doubles, 83 runs drove in, and 122 runs scored. His 38 homers tied a 26-year-old record for first year players that still stands.

Although his homer output dropped to 29, he upped his average to .322 in 1957 and won the Sophomore of the Year award. His average dropped again in 1958 to .269 with 31 homers and 83 RBI's. He won the National League Gold Glove award that year as the outstanding defensive left fielder. Robby began to reach his potential in 1961 when he hit 37 homers, 32 doubles, 124 RBI's, and scored 117 runs for a .323 average. That performance earned him the National League's Most Valuable Player award and led the Reds to a pennant. In World Series play, he went to bat 15 times, scored three hits with one homer, and drove in four runs. He was even better in 1962 when he safely hit 208 out of 609 times at bat for a fine .342 average and second place league honors. He belted 39 homers, 51 doubles, drove in 136 runs, and scored 134 runs. In leading the Reds to a third place finish, he successfully stole 18 bases.

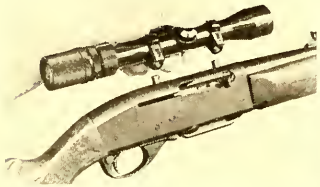
Robinson came close, but couldn't quite take top individual honors. One of the most underrated players in the National League, he did so many things well that too much was expected of him. He earned a reputation with his all out hard play which didn't win many friends among other players. This along with a string of injuries almost brought about his retirement, but devotion to baseball kept him playing. He brought his .259 average of '63 up to .306 in 1964 but dropped back to .296 in 1965. His homers dropped to an average of 27 during those three years, and the Reds began to consider him expendable. He had played 1,502 games for them, going to bat 5,527 times and scoring 1,673 hits. It added up to 324 homers, 318 doubles, 50 triples, 1,009 runs drove in, and 1,043 runs scored. He is one of the few active players with a lifetime average over the .300 mark.

He has probably received more press coverage on his batting stance than on the records that have come off his bat. Frank crowds the plate, standing no more than three or four inches away. Thus, he has been hit by 118 pitches to lead the league six times for that unwelcomed honor. An early arm injury took some of the zip from his throws, but he is still accurate and throws right to the bases. He doesn't look as big as his 6-foot 1-inch, 195-pound size, but he hits with deceptive power as his slugging percentages indicate. He led the league three straight years in that department, a record equaled by only seven of the all-time stars. Pitchers respect Robinson since he has led the league in intentional walks four years, '61 through '64. He owns an All-Star game batting average of .417 with five hits in 12 tries.

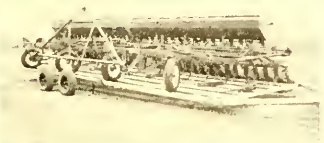
He is currently leading the American League in batting with a .318 average; in homers with 43; and tied in RBI's with 102. He could be the first player to win the American League triple crown since 1956 and the first major leaguer in baseball history to win a Most Valuable Player award in both leagues. His 367 lifetime homers rank him in the top 15 players on that list. In fact, Robinson may be the player who will reach Roger Maris' mark of 61 homers this year.

something new

F. With this automatic trip beam on a plow, the plow bottom will swing up if it gets under an obstruction (left above). After the bottom has cleared (center), it returns to the proper depth (right). (International Harvester)



G. This riflescope mount will fit any rifle, is stronger than other mounts, and gives more eye protection for the shooter. (D. P. Bushnell & Co., Inc.)



H. A farm machinery carrier that will glide off its wheels to the ground so you can drive the implements onto the rig without a ramp. (Donahue Mfg. Co.)

J. This transportable packaging system wraps 600 Christmas trees per hour in sleeves of plastic netting. Tests in 1965 showed a big drop in branch breakage with plastic mesh rather than twine bindings. (Du Pont Company)

K. Here's an attachment for a chain saw that can cut lumber of any size out of a log. (Granberg Industries)

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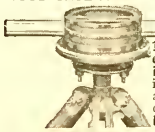

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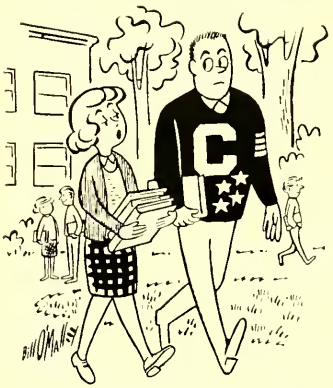
Paul: *"Don't you use toothpaste?"*
John: *"Why should I? I don't have any loose teeth."*

Tony Garza
Eloy, Arizona

Customer: *"Hey waiter, what is this fly doing in my soup?"*
Waiter: *"The backstroke."*

Ed Harms
Wilcox, Nebraska



"Are you interested in sports, Allen?"

Stationmaster: *"This train goes to Philadelphia and points west."*
Old lady: *"Well I want a train to Altoona, and I don't care which way it points."*

Boyd Holt
Keota, Oklahoma

Jim: *"My friend won a trip to Australia."*
Tom: *"What happened?"*
Jim: *"He's been over there five years trying to win a trip back."*

Ralph Bledsoe
Marshall, Missouri

George: *"Do you know what Batman said when he saw Robin in a dance hall?"*
Leroy: *"I don't know."*
George: *"Look at 'Rock'n Robin.'"*

Linwood Berard
Breaux Bridge, Louisiana

A man who found an Aladdin's lamp was granted three wishes by the Genie. Number one was a million dollars. Number two was a car. Then the man told the Genie to get into the car, and he would tell him wish number three. They did, and the man began to sing, *"Oh, I wish I was an Oscar Mayer Wiener."*

Jack W. Vines
Holdenville, Oklahoma

City boy: *"Why doesn't that cow have horns?"*
Farm boy: *"Well, some don't have horns because they're too young, while others never will have any. But this one doesn't have horns because it happens to be a horse."*

Robert Cullen
Utica, Minnesota

Bill: *"How do some people remind you of blisters?"*
Steve: *"I don't know. How?"*
Bill: *"They show up after the work is all done!"*

Donna Gruesbeck
Perry, Michigan

Three-fourths of the earth's surface is water and one-fourth is land. It's clear the good Lord intended man should spend three times as much time fishing as he does plowing.

Johnny Sherrer
Bay City, Texas

Farm boy: *"My father can't decide whether to get a new cow or a new tractor for the farm."*
City boy: *"He'd certainly look silly riding around on a cow."*
Farm boy: *"He'd look sillier trying to milk a tractor."*

Richard Scott
Kokomo, Indiana

Going Breathlessly

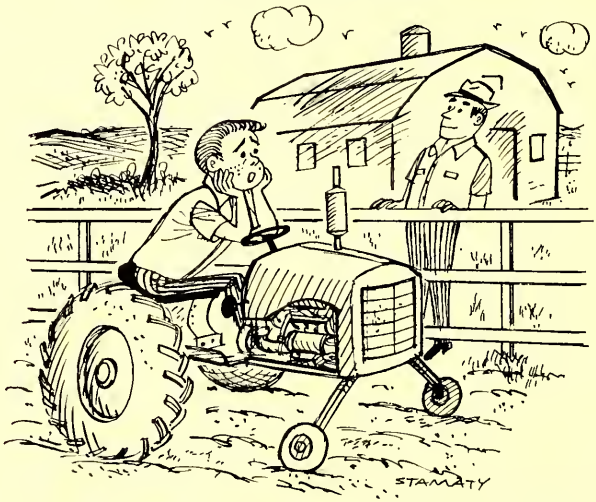
A circuit preacher, making his rounds on horseback through hill country, found one of his aged parishioners puffing a pipe on the porch of her shack. Pointing an accusing finger at the offending pipe, the preacher asked, *"Mrs. Wilkins, do you expect to be saved?" "Yes, Reverend, I do,"* she answered. The preacher's voice rose. *"Don't you know woman that the Bible says nothing unclean shall enter Heaven? How do you expect to go there with your breath smelling of evil tobacco?" "Well Reverend,"* Mrs. Wilkins said between puffs, *"when I die I 'spect to leave my breath behind me."*

Ricky Duggin
Murfreesboro, Tennessee

Father: *"Son, count as far as you can."*
Son: *"One, two, three, four, five, six, seven, eight, nine, ten, jack, queen, king."*
Father: *"Who taught you to count like that?"*
Son: *"Oh, some joker!"*

James H. Capley
Columbia, Tennessee

Charlie, the Green Hand



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THIS WE BELIEVE!

You cannot move without producing friction.

This is not intended as a scientific evaluation but as a comment on human reaction. The surest way to avoid criticism is to do nothing—do not move, and nobody knows you are around. The second surest way is to drift with the current of the age.

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